

The University of Chicago

THE BELT
AND SWITCHING RAILROADS OF
CHICAGO TERMINAL AREA

A PART OF A DISSERTATION SUBMITTED
TO THE FACULTY OF THE SCHOOL OF
BUSINESS IN CANDIDACY FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY

1931

By
PEI-LIN TAN

Private Edition, Distributed by
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CHAPTER II

HISTORY OF TRUNK LINES AND SMALLER SWITCHING AND TERMINAL LINES

The Chicago railway terminal, probably the largest in the world, may be pictured as half a spider web with the trunk lines as the long threads, radiating from the city as the center, and with the "switching and terminal" lines as the short threads, intervening between the long ones. The edge of this web is the main line of the Elgin, Joliet and Eastern, intersecting which are thirty-two trunk lines and lying within which are some twenty switching and terminal lines. Of the latter, seven are comparatively large, the belt and switching lines, and the remainder are comparatively small.

The present chapter is a brief history of the trunk lines and the smaller switching and terminal lines. The trunk-line history simply shows when the various lines entered Chicago, and does not explain all the reasons for their entry. To do the latter would require at least a thorough study of the economic history of the western expansion of this country. Furthermore, the present survey is more or less limited to the corporate histories of the trunk lines approaching the Chicago terminal, and does not cover the complete history of each trunk-line system. The history of the smaller switching and terminal lines is a brief record of the time of their incorporation, their location and ownership, and the nature of service rendered by them. The trunk-line history is taken up first, then the history of the smaller switching and terminal lines.

History of Trunk Lines

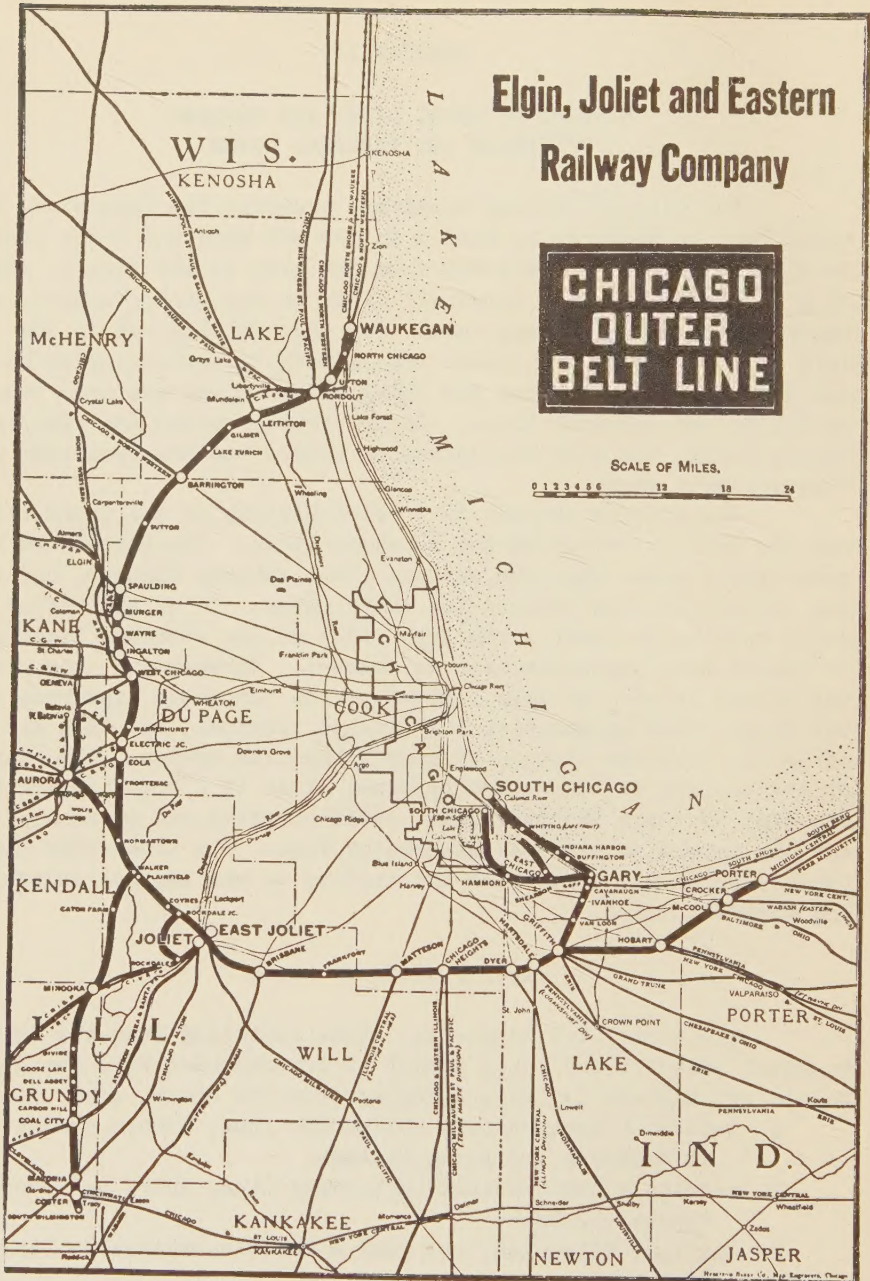
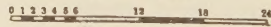
The thirty-two trunk-line stems radiating from the Chicago Terminal District and their points of intersection with the Elgin, Joliet and Eastern Railway, counting from the north, are:

1. Chicago & Northwestern--Milwaukee line, double track--at Waukegan and North Chicago
2. Chicago & Northwestern--Milwaukee line, third and fourth tracks--at Upton
3. Chicago, Milwaukee, St. Paul & Pacific--Milwaukee line--at Rondout

Elgin, Joliet and Eastern Railway Company

CHICAGO OUTER BELT LINE

SCALE OF MILES.



4. Chicago, Milwaukee, St. Paul & Pacific--Madison line--at Rondout
5. Minneapolis, St. Paul & Sault Ste Marie--at Leithton
6. Chicago & Northwestern--Janesville line--at Barrington
7. Chicago, Milwaukee, St. Paul & Pacific--Omaha line--at Spaulding
8. Illinois Central (West)--at Munger
9. Chicago Great Western--at Ingaltton
10. Chicago & Northwestern--at West Chicago (old Turner Junction)
11. Chicago, Burlington & Quincy--at Eola
12. Chicago, Rock Island & Pacific--at Joliet
13. Atchison, Topeka & Santa Fe--at Joliet
14. Chicago & Alton--at Joliet
15. Wabash (West)--at Brisbane
16. Illinois Central--at Matteson
17. Cleveland, Cincinnati, Chicago & St. Louis--at Matteson (over Illinois Central tracks)
18. Chicago & Eastern Illinois--at Chicago Heights
19. Chicago, Terre Haute & Southeastern--at Chicago Heights
20. Chicago, Indianapolis & Louisville--at Dyer
21. Chicago, Indiana & Southern--at Hartsdale
22. Pittsburgh, Cincinnati, Chicago & St. Louis--at Hartsdale
23. Erie--at Griffith
24. Chesapeake & Ohio--at Griffith
25. Grand Trunk--at Griffith
26. New York, Chicago & St. Louis--at Hobart
27. Pittsburgh, Fort Wayne & Chicago--at Hobart
28. Baltimore & Ohio--at McCool
29. Wabash (East)--at Crocker
30. Michigan Central--at Porter
31. Pere Marquette--at Porter
32. Lake Shore & Michigan Southern--at Porter

The extension of these lines to or from Chicago will be studied as far as desirable in a chronological order.

Chicago and Northwestern.--This system enters Chicago by four lines, one of which represented the first railroad to come to this terminal.

(1) Omaha line.--The Galena and Chicago Union Railroad, chartered in 1836, dormant during the years following the panic of 1837, revived again in 1846, was completed in 1850 as the first railroad from Chicago west to Elgin, via Turner Junction (now West Chicago). The iron horse reached Freeport, Illinois, in 1853, and at the exhaustion of all local financial aid, was to make Galena over the prospective Illinois Central Railroad.

Galena was then a prosperous lead mining center, more highly developed than Chicago, and a strategic outlet on the Upper Mississippi. The Galena Company's lucrative dividends of 10 to 15 per cent for the first few years attracted capital, eastern and western. To reach the Mississippi they built in 1854 the Dixon Air Line from Turner Junction to the river at Clinton, Illinois. Thus, the portion from Chicago to Clinton, or lake to river, of the present Omaha line of the Chicago and Northwestern was completed. Not entirely satisfied with westward pioneering from Chicago, the Galena Company had, as early as 1848, conceived of extending an arm eastward from Chicago to meet the Michigan Central, thus to form "the great North-western railroad thoroughfare for all time to come."¹

(2) Janesville line.--As the first direct ancestor of the Chicago and Northwestern, the Illinois and Wisconsin Railway was organized February 12, 1851, built from Chicago to Cary, Illinois, in 1854, and extended from Cary to Janesville, Wisconsin, in 1855. The road was consolidated with the Rock River Valley Union Railroad, constructed about the same time from Sharon, Wisconsin, to Fond du Lac, Wisconsin, under the name of Chicago, St. Paul and Fond du Lac Railroad, thus to form a through route from Chicago to Fond du Lac. As a result of financial failure in 1857, the consolidated property was sold to the Chicago and Northwestern Railroad Company, organized June 7, 1859, with William B. Ogden as president. Five years later, in 1864, the company was merged with the old Galena road; both roads traversed much of the same territory. Abandoning the pioneer name of Galena, which was never reached by the company's own track, the new corporation adopted the appellation of the Chicago and Northwestern Railway, sufficiently covering the whole system, then as now.

(3) Milwaukee line.--Bringing Chicago into connection with some lake shore cities of Wisconsin, opening up a road to compete with the lake route, the line often called the "Lake Shore" by that time, was completed between Milwaukee and Chicago in 1855, and leased to the Chicago and Northwestern in 1866. The corporate history of the Milwaukee line comprises the Illinois Parallel Railroad, incorporated in 1851 to build from Chicago northerly to the state line, and soon changed to the Chicago and Milwaukee Railroad; the Green Bay, Milwaukee and Chicago Railroad, chartered in Wisconsin about the same time to construct from Milwaukee southerly toward

¹ Underlined in original report given by William B. Ogden, third president of the Galena Company. See William H. Stennett, The History of the Origin and Place Names of the Chicago and Northwestern Railway Company (Chicago, 1908), p. 15.

the state line, and changed in 1857 to the Milwaukee and Chicago Railroad. The Chicago and Milwaukee and the Milwaukee and Chicago were consolidated in 1863 as the Chicago and Milwaukee Railroad, which after three years, was taken into the Chicago and Northwestern family.

(4) Newer Milwaukee line.--The Junction Railway Company (not to be confused with the Chicago Junction Railway), organized in 1889 and purchased by the Chicago and Northwestern in 1891, completed an extension from North Evanston on the Milwaukee Division to Mayfair within the Chicago terminal. The extension was part of a belt system which connected, as now, the three main lines of the Chicago and Northwestern that entered Chicago, and which facilitated the transfer of freight from one division to another without bringing it into the crowded city yards.¹ By 1904 congested traffic along the Milwaukee line had indicated the necessity for third and fourth tracks. Investigation suggested the advisability of constructing an independent road, two to three miles west of the main line with its populous suburbs. Thus the third and fourth tracks were laid from a point on the Evanston-Mayfair cut-off to a junction with the main line at Lake Bluff in 1904, and thence extended to Bay View (near Milwaukee) in 1906, a four-track system between Chicago and Milwaukee thus being established. The Lake Bluff-Bay View line was built by the Milwaukee and State Line Railway, organized January 28, 1905, in Illinois, and sold to the Chicago and Northwestern January 30, 1909.²

Chicago, Burlington and Quincy.--The Aurora Branch Railroad, chartered February 12, 1849, to build from Aurora north to a connection with the Galena and Chicago Union at Turner Junction, was a small local railroad, financed entirely by citizens of Aurora and vicinity and completed November 1, 1850, with an arrangement to use the Galena rails from Turner to Chicago. Affording the people of Aurora and vicinity access to the lake, the arrangement was so satisfactory that no direct line was built from Aurora to Chicago until 1864.³ By 1852 Boston interests had extended the Michigan Central into Chicago, and began to look about for western connections and feeders. They bought some Illinois railroad charters from the local capitalists, some of whom apparently had been railroad speculators. To make the charters acceptable to the

¹Ibid., p. 104.

²Chicago and Northwestern Railway Company Annual Reports, June 30, 1904, p. 18; 1905, p. 20; and 1906, p. 18.

³W. W. Baldwin, Story of the Burlington (Chicago, 1920), pp. 7 and 9.

eastern financiers, amendments were secured from the Illinois legislature to permit extensions and connections of the lines, which were put on an equal footing with the Illinois Central in respect to the right for rate-making.¹ The Aurora Branch, changed to the name of Chicago and Aurora, extended its line from Aurora westerly to Mendota in 1853, where it connected with the Central Military Tract, organized in 1851, running from Galesburg to Mendota. In 1855 it was reorganized as "Chicago, Burlington and Quincy Railroad," which absorbed the Central Military Tract in 1856. Meanwhile extension from Galesburg to Burlington was made by purchasing the Peoria and Oquawka Railroad, incorporated in 1849, and to Quincy, by acquiring the Northern Cross Railroad, a part of which represented the only completed railroad of the Illinois Internal Improvement plan some twenty years previous (1837). In 1863, the Burlington acquired a right-of-way to the Lake Front along Sixteenth Street. It used the Illinois Central passenger terminal facilities up to 1881, when it changed to the Union Depot on Canal Street, and thus was brought into direct connection with the Pennsylvania, Chicago and Alton, and St. Paul systems.

Lake Shore and Michigan Southern (New York Central).--The Lake Shore and Michigan Southern, the first eastern trunk line to reach Chicago, entered it February 20, 1852, under the name Michigan Southern Railway. Its earliest predecessor, the Erie and Kalamazoo, incorporated in 1833, completed a line from Port Lawrence (now Toledo) to Adrian, Michigan, in 1837. By 1846 the state of Michigan had built the Michigan Southern Road from Monroe to Hillsdale, but under financial pressure, sold the road to eastern interests for \$509,000, about half its cost. Permanently leasing the Erie and Kalamazoo in 1849, and extending its own line to the Indiana State line to connect with the Northern Indiana Railroad, which was completed to Chicago in June, 1852, the Michigan Southern established an all-season route between Chicago and Toledo. The road was at first planned to run from Toledo to St. Joseph or Grand Haven, Michigan, on the lake, but the eastern interests made Chicago the terminus, from where they would extend to the Mississippi by the Rock Island. The Northern Indiana Railroad was organized in 1849 to reorganize some pre-existing lines in Indiana, and consolidated under the same name with two other companies in Ohio and Illinois. The consolidation of the Michigan Southern and the Northern Indiana took place April 25, 1855, in which year they began construction

¹Ibid., p. 12. Henry G. Pearson, An American Railroad Builder, John M. Forbes (New York: Houghton Mifflin Co., 1911), p. 74.

of the Van Buren Street Depot in co-operation with the Rock Island. The name "Lake Shore and Michigan Southern" was adopted at the consolidation in 1869 of the Michigan Southern and Northern Indiana, the Lakeshore (along Lake Erie), and the Buffalo and Erie--the three principal companies owning lines between Buffalo and Chicago. In the same year the two roads connecting New York and Buffalo, the Hudson River and the New York Central, were consolidated. After establishing a thoroughfare between Chicago and Buffalo, the Lake Shore and Michigan Southern naturally allied itself with its strong neighbor, the New York Central, so as to exchange the heavy traffic moving between the Atlantic seaboard and the Western gateways.

Michigan Central.--This road entered Chicago over the Illinois Central in 1852. Its history dated back to the Detroit and St. Joseph Railroad, chartered in 1831 as the pioneer road of Michigan, but sold after the reverses of 1837 to the state of Michigan, which completed it from Detroit to Jackson in 1844, only to resell it in the same year to Boston capitalists for \$2,000,000, much below its cost. Reorganized as the Michigan Central, it was completed in 1849 to New Buffalo, Michigan, at the southern extremity of Lake Michigan, where daily steamers ran between New Buffalo and Chicago. Soon extension was made from New Buffalo to Michigan City, Indiana. To build in Indiana, the Michigan Central put money into the New Albany and Salem which gratefully consented to start constructing at once a "branch" around Lake Michigan. For several years the Michigan Central and the Michigan Southern had been rivals, not only in Michigan and Northern Indiana, but also in the race for eastern and western extensions. Now each endeavored to secure an independent entrance into Chicago and to prevent the other from obtaining a similar right, but neither could secure a charter from the state of Illinois or a franchise from the city, in 1851. In the following year, however, the alert Michigan Southern smoothed its way diplomatically and came to Chicago on its own track. The Michigan Central allied with the Illinois Central; promised it that "universal desideratum, eastern capital" so as to start building its "Chicago Branch"; helped it amend the charter to permit connections with other roads, and in 1852, saw its track laid as far east as from Kensington to Twelfth Street, Chicago. The gap between the Michigan Central and the Illinois Central connection was built by the Michigan Central, without a charter, with hope for its legalization by the next legislature. Though the Illinois Central, under New York control, could not be an adequate outlet for the energetic Boston capitalists, "yet go ahead they must, for the Michigan Southern had no sooner reached Chicago than its owners began the construction of

the Rock Island."¹

Chicago, Rock Island and Pacific.--The Chicago-Joliet portion of the present Rock Island system was opened October 18, 1852. The Rock Island and La Salle Railroad was projected in 1847, but nothing was done until interest revived in 1851. Backed by the Michigan Southern people, the road amended the charter to permit extension of its line through Ottawa and Joliet to Chicago, and change the name to the Chicago and Rock Island Railroad. Building with incredible rapidity for those days, it opened from Chicago to Joliet (40 miles) October 18, 1852; to Ottawa (84 miles) February 14, 1853; to Rock Island (181 miles) February 22, 1854. In less than two years, the first continuous line of railroad between Lake Michigan and the Mississippi had been put into operation. The Galena reached the river later, either by way of the Illinois Central track to Galena or by the Dixon Air Line to Clinton. The Michigan Southern and the Rock Island entered Chicago in the same year, and settled under the same roof on Van Buren Street. In 1866 the Chicago and Rock Island Railroad was merged with the Chicago, Rock Island and Pacific Railroad, which had been incorporated about ten years earlier in Iowa. The consolidation took the name of the latter company.

Illinois Central.--The section from Calumet (now Kensington) to Chicago was opened May 20, 1852, to give ingress to the Michigan Central. It was extended to Kankakee in June of the same year; to Urbana in July, 1854; to Mattoon in 1855, and lastly to Centralia September 20, 1856. The whole section, 250 miles, between Chicago and Centralia, was called the Chicago Branch, added to the original Illinois Central project through the influence of Stephen A. Douglas, who was accused of doing it to increase the value of his Chicago real estate and at the same time praised for his success in obtaining eastern support. The original strategy of the Illinois Central was to provide a route through central Illinois, so as to tap the Upper Mississippi trade at Galena (near Dubuque) and carry it south the length of Illinois to Cairo, where contact would be effected with the Ohio and Mississippi River traffic. Apparently this was to follow the old theory of "trade will follow the river." Chartered in 1836, and languishing after the panic of 1837, the company revived at a huge land grant in 1850 by the federal and state governments. At the close of 1855 the entire line from Cairo to Dunleith (now Dubuque) had become ready for operation. During and considerably after the Civil War, the connection with the lake route was all-important to the Illinois Central, and much of the company's originally south-bound traffic was directed over the

¹ Ibid., pp. 73-74.

Chicago Branch to the lake.

Illinois Central (West).--The Illinois Central's huge "Y-shaped" system with one "prong" running from Centralia to Dubuque and the other to Chicago, remained for more than thirty years without a direct connection at the northern extremities. This had continued even though in the twenty years following 1867, the company had leased various Iowa roads extending westward from Dubuque, from which it received considerable tonnage. The desirability of a direct connection between Freeport and Chicago, over which the company could move this large Iowa tonnage, became evident, though its predominant strategy had been to develop lines running north and south. It organized the Chicago, Madison and Northern Railroad in Illinois and Wisconsin, which completed a line from Chicago to Freeport, Madison and Dodgeville in 1888, in which year the directors of the Illinois Central announced trains from a point near the city limits of Chicago to those places. The right of way through Chicago to the lake front was not obtained until 1890.

Chicago and Alton.--Like the Illinois Central, the Chicago and Alton was not originally conceived as a Chicago road. Apparently it was planned in the interest of Alton, twenty-five miles above St. Louis, and projected from Alton to Springfield, the present capital of Illinois, with a view to bringing interior produce to Alton rather than St. Louis. Supported financially by the citizens of Alton and Springfield, the Alton and Sangamon Railroad was chartered February 27, 1847, to build a road between the two cities first mentioned, and completed it in 1853. The Chicago and Mississippi Railroad, chartered June 19, 1852, by the people of Bloomington, aided by the people of Springfield, extended the Sangamon road from Springfield to Bloomington in 1854, and thence to Joliet in 1856. Apparently the two railroads were combined under the name of Chicago, Alton and St. Louis Railroad, which was later reorganized under the slightly changed title of St. Louis, Alton and Chicago Railroad. In 1862 the road was sold under foreclosure to the Chicago and Alton Railroad, organized to make the purchase. The Joliet and Chicago Railroad had secured a right of way from and finished a line to the city of Chicago in 1857, and in 1864, was permanently leased to the Chicago and Alton.

Pittsburgh, Fort Wayne and Chicago (Pennsylvania).--Between 1848 and 1854, the Ohio and Pennsylvania Railroad and the Ohio and Indiana Railroad were incorporated and completed from Pittsburgh (Alleghany City) to Fort Wayne via Crestline. The citizens in the counties between Fort Wayne and Chicago organized the Fort Wayne and Chicago Railroad in 1852-53 in Indiana and Illinois, to extend the road from Fort Wayne to Chicago. However, construction soon

came to a standstill for want of funds. To secure financial aid from eastern trunk lines and form a through route to reach the growing West, the Ohio and Pennsylvania, the Ohio and Indiana, and the Fort Wayne and Chicago unanimously favored consolidation under the name of Pittsburgh, Fort Wayne and Chicago Railroad in 1856. It was about this time that the Pennsylvania and the Baltimore and Ohio were said to be backing the Chicago and Fort Wayne and the Chicago and St. Charles (not to be confused with the present St. Charles Air Line), the purpose of the latter road being to reach Savanna and Galena on the Mississippi. The Fort Wayne road had been completed from Fort Wayne to Plymouth, Indiana, in 1856. The last link from Plymouth to Chicago via Valparaiso was completed in 1858 with iron rails furnished by the Pennsylvania.¹ Thus a through line between Philadelphia and Chicago was finally established. In return for this and other accommodation, the Fort Wayne road pledged its traffic flowing east to the Pennsylvania. Attaining a stronger financial position, the Fort Wayne considered it preferable to have an independent line to the East. Meanwhile the Erie Railroad was attempting to absorb the Fort Wayne. To establish closer relations with its western connections, the Pennsylvania changed its policy from that of "reaching the traffic of the Northwest and Southwest by assisting in the construction of connecting lines leading to the markets of these sections,"² to a more aggressive one, namely, to lease the Fort Wayne for 999 years, even under rather onerous terms.

Pittsburgh, Cincinnati, Chicago and St. Louis (Pennsylvania).--This road, generally known as the Pan Handle, had its origin in the Chicago and Cincinnati Air Line, afterward the Chicago and Great Eastern, and still later the Columbus, Chicago and Indiana Central Railway. The Air Line, running from Richmond, Indiana, probably through Logansport and La Crosse to Valparaiso, used the Fort Wayne tracks from Valparaiso to Chicago up to 1866. In that year the Chicago and Great Eastern Railroad completed a track from La Crosse to Chicago, thus obviating need for the section between La Crosse and Valparaiso; trains could run from Richmond direct into Chicago. In 1867 the Chicago and Cincinnati Air Line and the Columbus, Chicago and Indiana Central (formerly the Chicago and Great Eastern) were consolidated, probably under the name of the latter company. The consolidated system extended from Columbus to Chicago through Richmond, and from Richmond west

¹H. W. Schotter, The Pennsylvania Railroad Company (Philadelphia: Allen, Lane & Scott Press, 1927), p. 50.

²Ibid., pp. 78-79.

to Indianapolis, and from Bradford Junction to near Logansport, and thence to the state line, Illinois. The word "Chicago" did not come into the company's present title until October 1, 1890. There had been in existence a road by the name of "Pittsburgh, Cincinnati and St. Louis," which represented a consolidation on April 20, 1868, of the Pan Handle Railway and two other roads. Extending from Pittsburgh to Columbus, it desired a closer relationship with western connections. It leased the Columbus, Chicago and Indiana Central in 1869 for 99 years. The lease came to an end, however, when the latter road was sold under foreclosure in 1883, and reorganized as the Chicago, St. Louis and Pittsburgh Railroad. In 1890, it merged with the Pittsburgh, Cincinnati and St. Louis and two other roads under the name of "Pittsburgh, Cincinnati, Chicago and St. Louis Railway." Through this combination, the Pennsylvania reached several large cities in the west and southwest, including Chicago and St. Louis.

Chicago and Eastern Illinois.--In 1881 the Chicago and Eastern Illinois began to use the Chicago and Western Indiana tracks from Dolton northward to Chicago. The Chicago, Danville and Vincennes Railroad, chartered in 1865, was completed from Dolton to Danville, Illinois, 107.21 miles, in 1871. The Evansville and Terre Haute Railroad, organized in 1852 to consolidate two pre-existing lines, had completed a road from Evansville to Terre Haute in 1853. Thus the purpose of the Chicago, Danville and Vincennes may have been, in part, to connect the southern road, though the coal resources of the section traversed were not overlooked. The gap from Danville to Terre Haute was finished in 1872 by the Evansville, Terre Haute and Chicago Railroad, incorporated in 1869. The Chicago and Eastern Illinois Railroad was organized in 1877 to acquire the property of the Chicago, Danville and Vincennes at forced sale, and leased the Evansville, Terre Haute and Chicago in 1879 for 999 years. The company used the tracks of the Pan Handle from Dolton to Chicago up to 1881, when it transferred to the Chicago and Western Indiana route. With the completion of the Ohio River bridge at Henderson in 1885, the Chicago and Eastern Illinois formed an important connection with Louisville and Nashville, thereby bringing Chicago into direct communication with the Southern states.

Chicago, Milwaukee, St. Paul and Pacific.--This road was originally based on Milwaukee rather than on Chicago--to connect the Mississippi with the lake at Milwaukee. The system enters the Chicago terminal by three lines.

(1) Milwaukee line.--The Milwaukee and St. Paul Railroad was organized in 1863 to take control of the property of some preceding lines lying between Milwaukee and Prairie du Chien. The

Chicago, Milwaukee and St. Paul Railroad, of Illinois, was chartered in 1872 to construct from Chicago to the Wisconsin state line. On February 7, 1874, the Milwaukee and St. Paul was changed to the Chicago, Milwaukee and St. Paul, of Wisconsin. The two companies of Illinois and Wisconsin were apparently combined, the line between Milwaukee and Chicago having been built in 1873.

(2) Omaha line.--In 1865 the Atlantic and Pacific Railroad (changed to the Chicago and Pacific in 1872) had been chartered to construct from Chicago to the Mississippi at Savanna. Between 1872 and 1875 some 88 miles were built from Chicago to Byron, Illinois. In 1879 the Chicago, Milwaukee and St. Paul acquired this road under foreclosure and proceeded to complete it to the Mississippi River. About the same time various Iowa roads were acquired, and in 1881 and 1882 some 261 miles of line between Marion and Council Bluffs were built, thus giving the carrier a through line from Chicago to the Missouri River.

(3) Rondout to Janesville.--In 1880 a branch was constructed to Libertyville, Illinois, from the present Rondout on the Chicago and Milwaukee Division. An extension from Libertyville to Fox Lake, Illinois, 19.7 miles, was opened for traffic April 29, 1900. Further extension to Janesville, Wisconsin, was completed in the following year.

In 1880 the Chicago, Milwaukee and St. Paul entered an agreement with the Pennsylvania, the Chicago, Burlington and Quincy, and the Chicago and Alton to erect a union depot on Canal Street, Chicago. Ten years later the general offices of the St. Paul were moved to Chicago from Milwaukee. The present company, Chicago, Milwaukee, St. Paul and Pacific, was incorporated March 31, 1927, in Wisconsin, to purchase the properties of the Chicago, Milwaukee and St. Paul at public auction for \$140,000,000.

Baltimore and Ohio.--The Baltimore and Ohio, chartered in 1827, evidently conceived its project, after 1870, for an extension to Chicago, "a growing railroad center, a manufacturing town of promise, and a lake port of increasing traffic." Furthermore, its two leading competitors, the New York Central and the Pennsylvania, had already acquired control of lines from Buffalo and Pittsburgh to Chicago. Thus, John W. Garrett, creator of the modern Baltimore and Ohio and president of it from 1858 to his death in 1887, thrust "the first part of a long finger to reach the Chicago pie"¹ by constructing a line from Newark, Ohio, to a lake terminal at Sandusky. An extension from the Newark-Sandusky line at Chicago Junction

¹Edward Hungerford, The Story of the Baltimore and Ohio (New York: G. P. Putnam, 1928), pp. 69-70.

(Willard) to Baltimore Junction in the outskirts of Chicago was completed November 15, 1874. Arrangements were made to use the Illinois Central tracks from Seventy-first Street to its passenger depot on the lake front. In the following year, a connection was effected with the Union Stock Yards tracks. Since the Illinois Central tracks were overcrowded and the Wisconsin Central (present Soo Line) offered more adequate facilities at the Grand Central Depot on Harrison Street, the Baltimore and Ohio became a tenant of the new depot in 1891. About twenty years later it bought the property and other facilities, thus to make secure its terminal position in Chicago.

Grand Trunk.--Lying in Canada and the United States, the Grand Trunk was completed to Chicago in 1880. The part in this country is largely located in Michigan. In 1877 William H. Vanderbilt succeeded his father as president of the Lake Shore and Michigan Southern, and in the following year was elected president of the Michigan Central. The control of these lines and acquisition of others in Michigan by the Vanderbilt interests deprived the Grand Trunk of a western connection independent of eastern trunk-line control. This occasioned considerable concern for the Grand Trunk directorate who were now convinced of the necessity of securing a controlled line to Chicago. This connection was actually secured in 1880 by the purchase of some seven connecting lines between Port Huron, Michigan, and Valparaiso, Indiana, and by the construction of two other lines' projects from Valparaiso to Chicago. Arrangement was made with the Chicago and Western Indiana to use its track from Forty-ninth Street into inner Chicago.

Wabash.--This road approaches Chicago by two lines, east and west.

(1) Wabash (West).--On November 7, 1879, the Wabash, St. Louis and Pacific Railway emerged as a consolidation of two railroads, both of which represented several consolidations and reorganizations. The main line, at that time, ran from Toledo to Omaha and Kansas City, but did not reach either Detroit or Chicago. It had leased a line known as the Chicago and Paducah, which dated back to 1872, and had constructed by 1874 a line from Streator, to Effingham, Illinois, via Forrest, Strawn, and Bement. In 1879 a 95-mile extension from Strawn to Chicago was commenced, and completed in March, 1880. The system with a total mileage of 3,610 passed into the hands of receivers in 1884, and was shorn of some 1,540 miles within the following three years. Another consolidation took place in 1889, when the name "Wabash Railway" was adopted.

(2) Wabash (East).--The line from Montpelier, Ohio, to

Clarke Junction, Indiana, was opened to freight traffic April 30, 1893, and to passenger traffic May 14, 1893. The facilities that subsequently became those of the Baltimore and Ohio Chicago Terminal were used from Clarke Junction to Hammond, where a junction with the Chicago and Western Indiana was effected.

Chicago, Indianapolis and Louisville (Monon Route).--The New Albany and Salem Railroad, apparently organized in 1847 in Indiana, had completed a line from New Albany (near Louisville) on the Ohio River to Michigan City on Lake Michigan in 1852. Thus this Ohio-Lake connection was established before the Illinois Central connected Chicago with Cairo (in 1856). The completion of the New Albany road was said to be "one of the first great undertakings in the West and might have been the means of making Michigan City the Chicago, were all other things equal."¹ In 1859 the New Albany road changed its name to the Louisville, New Albany and Chicago Railroad; this name was slightly changed again in 1873 with the word "Railway" for "Railroad." In 1872 a narrow gauge railroad was projected to run from Indianapolis to Chicago, crossing the Louisville, New Albany and Chicago at the present town of Monon. Some forty miles had been opened between Delphi and Rensselaer in 1879, when the road was sold under foreclosure and reorganized as the Chicago and Indianapolis Air Line, which was merged with the Louisville, New Albany and Chicago in 1881. It was changed to standard gauge and opened to Hammond in January, 1882, then used the Chicago and Western Indiana tracks from Hammond to Chicago. After sale under foreclosure in 1897, the Louisville, New Albany and Chicago was reorganized under the name of Chicago, Indianapolis and Louisville Railway, providing a through route to Chicago for the Louisville and Nashville and the Southern Railway.

New York, Chicago and St. Louis (Nickel Plate).--This road was a consolidation on April 12, 1881, of five pre-existing companies, which were apparently parts of the same scheme, namely, to build a railroad from Buffalo to Chicago. The entire line was put in operation in 1882. Being a competitor of the Lake Shore and Michigan Southern, it went into the hands of the Vanderbilt interests in May, 1887. It used the tracks of its sister road--the Lake Shore and Michigan Southern--from Grand Crossing to the Van Buren Street Depot. The name "Nickel Plate" is said to have been derived from the perfection of its construction and equipment.

The Erie.--This road acquired western ambitions about the same time as its great trunk-line competitors. Having failed to

¹Industrial Chicago (Chicago: Goodspeed Publishing Co., 1894), Part IV, p. 668.

absorb the Fort Wayne and other western connections of the Pennsylvania before 1870, it incorporated in 1871 in Indiana, the Chicago, Continental and Baltimore Railroad, and in Ohio, the Baltimore, Pittsburgh and Continental. (The present Erie does not touch Baltimore.) In 1873 the former was re-christened the Chicago and Atlantic, which was consolidated with the Baltimore, Pittsburgh and Continental under the former's name. The aim, of course, was to provide the Erie with direct access to Chicago; but it achieved actual entry much more tardily than the competing trunk lines. On November 1, 1880, the Chicago and Atlantic leased the tracks of the Chicago and Western Indiana from Chicago to Hammond, extended for the purpose of meeting that eastern carrier and the Monon. The last rail was laid on the stretch between Marion, Ohio, and Hammond, December 9, 1882. On April 12 of the following year, the first train was run between Chicago and Huntington, Indiana. In 1890 the Chicago and Atlantic was made the Western Division of the Chicago and Erie.

Minneapolis, St. Paul and Sault Ste Marie (Soo Line¹).-- This road was introduced to Chicago in 1886 through its corporate predecessor, the Wisconsin Central, in which the Northern Pacific was interested. In the early 1880's the Wisconsin Central had a series of lines extending from Menasha, Wisconsin, to Ashland, on Lake Superior, via Abbotsford. In 1882 a subsidiary began construction from Menasha toward Milwaukee on Lake Michigan, using the Chicago, Milwaukee and St. Paul to enter that terminal. A Chicago extension appeared logical, and throughout 1885 efforts were directed toward this end. The St. Paul line between Milwaukee and Chicago seemed to offer adequate terminal facilities, but negotiations with it were fruitless. Then the Wisconsin Central decided to build from Schleisingsville to Chicago, and by March, 1886, had laid a track from the former point to a crossing with the Belt Railway of Chicago, a distance of some 120 miles. That is to say, the railroad had already entered the Chicago district. But terminal facilities were more difficult to secure. The Chicago and Western Indiana refused to supply them for fear of interference with the handling of freight on their belt line. Finally the Chicago and Great Western (not to be confused with the present Chicago Great Western) was regarded as a possibility, since it already had approaches both from the south and west, and under an old charter had access to the present Harrison Street terminal site. The Wisconsin Central was leased to the Minneapolis, St. Paul

¹The word "Soo" is probably a corrupt spelling of the French word "Sault."

and Sault Ste Marie April 1, 1909, for 99 years. The latter road was incorporated in 1888 under the laws of Michigan, Wisconsin, Minnesota, and the former territory of Dakota, and has been controlled by the Canadian Pacific Railway since 1888. Since July 1, 1909, the Wisconsin Central lines have been operated as the Chicago district of the Soo Line.

Chicago Great Western.--A railroad known as the Minnesota and Northwestern completed a line from St. Paul southward to Lyle, Minnesota, in 1885, although its charter dates back to the fifties. Between 1882 and 1884 another line was constructed between Oelwein and Des Moines, Iowa, by the Wisconsin, Iowa and Nebraska Railroad; and in 1886 this road became known as the Chicago, St. Paul and Kansas. In the meantime the Minnesota and Northwestern had started toward Chicago, by purchasing a line to Dubuque, and by chartering an Illinois company to build from Dubuque to Chicago. During 1887 construction was in progress between Freeport and Chicago, and Freeport and Dubuque; and by July of that year, the road was completed between Freeport and a junction with the Wisconsin Central, nine miles west of Chicago. For a time trains used the Illinois Central tracks between Freeport and Dubuque. By August, 1887, trains were running between Minneapolis and Chicago over the newly constructed division. The present name, "Chicago Great Western Railroad," was adopted in 1909, as a reorganization of the Chicago Great Western Railway, chartered in 1892.

Atchison, Topeka and Santa Fe.--This system started as a Kansas project, its extension in the seventies being directed to the west and southwest. Its eastern ambition, however, was revealed as early as 1869 in these words: "Imagine my right hand as Chicago and my left as St. Louis,"¹ uttered by Cyrus K. Holliday, president and "father" of the Santa Fe system. This "right hand" imagination might have been realized later, had not the eastern railroads passed the Missouri River to invade the territory of the Santa Fe. The extension of such roads as the Rock Island and the Burlington west of the Missouri indicated to the Santa Fe the desirability and necessity of having its own connections with Chicago, by which it would obviate further dependence upon connections at the river, and would be enabled to compete for the business to and from the East so far as its own territory was concerned. Accordingly the Chicago, Santa Fe and California was chartered in Illinois in 1886 to provide a connection between Chicago and Kansas City. So far as actual construction within the Chicago district

¹Glenn D. Bradley, The Story of the Santa Fe (Boston: R. G. Badger, 1920), p. 79.

is concerned, however, the Chicago and St. Louis Railway must be mentioned. By 1883 a track (under another name) had been constructed from Chicago to Coal City, 59 miles; and by 1886, the Chicago and St. Louis, as it was now known, had extended this track through Streator to Pekin, via Ancona, Illinois. This road was acquired by the Santa Fe subsidiary, thus giving access to Chicago as far as Twenty-third Street. The gap between Ancona, Illinois, and Kansas City was filled by new construction and opened for through operation in 1888, which year may be said to have been the realization of Holliday's "right hand" dream. He lived to see it.

Cleveland, Cincinnati, Chicago and St. Louis (Big Four).--Although the tracks of this carrier do not enter the terminal district, its trains enter Chicago. As now styled, the carrier was a consolidation in June, 1889, of the Cincinnati, Indianapolis, St. Louis and Chicago; the Cleveland, Columbus, Cincinnati and Indianapolis; and the Indianapolis and St. Louis. One subsidiary of the Cincinnati, Indianapolis and St. Louis, the Cincinnati, Lafayette and Chicago, had built to Kankakee, Illinois. In 1882 an extension, jointly financed by the Cincinnati, Indianapolis, St. Louis and Chicago and the Chicago, Rock Island and Pacific, was opened from Kankakee to Seneca under the name of Kankakee and Seneca Railroad, whose trains entered Chicago from Seneca over the Rock Island. Poor's Manual of Steam Railroads for 1889 shows that the Cleveland, Cincinnati, Chicago and St. Louis had a Chicago Division, extending from Cincinnati to Chicago. Other financial manuals for 1890 also indicate that an operating contract had been made between the Illinois Central and the Big Four, by which the former was to haul trains of the latter from Kankakee to Chicago. This arrangement is still effective. Thus 1889 may be considered as the year of entry of the Big Four into Chicago.

Pere Marquette.--Representing a consolidation in 1899 of the Flint and Pere Marquette, the Detroit Grand Rapids and Western, and the Chicago and Western Michigan, and two other smaller roads, the Pere Marquette then extended largely in central Michigan, between Detroit, Port Huron, Ludington, and Grand Rapids. Within striking distance of Chicago, it acquired ambitions to become a trunk line with direct access to Chicago and Buffalo. The Chicago extension was put in operation January 1, 1904. It consisted of the Pere Marquette Railroad of Indiana, from Alfred, Michigan, to Porter, Indiana; trackage rights over the Lake Shore and Michigan Southern between Porter and Pine, Indiana; and a lease of the Chicago Terminal Transfer Railroad (now Baltimore and Ohio Chicago Terminal) from Pine to the Grand Central Depot on Harrison Street.

Chicago, Indiana and Southern (New York Central).--This

road was incorporated April 9, 1906, in Indiana and Illinois, taking control of the Indiana, Illinois and Iowa (Triple Optic) and the Danville and Indiana Harbor railroads. The Triple Optic had built a line from Zearing, Illinois, to South Bend, Indiana, 200 miles. From 1895 on, various small terminal lines in the Calumet region were being welded to form the Indiana Harbor Belt line; but down to 1906 they were known as the Indiana Harbor Railroad. In that year an extension had been projected from Indiana Harbor, Indiana, 19 miles from Chicago, southward to Danville, Illinois, presumably for the purpose of effecting a connection with the Big Four from Cairo. The name "Indiana Harbor Belt" was henceforth reserved for the belt lines proper. The line from Indiana Harbor to Danville was opened in early 1906. To reach Chicago, the Lake Shore and Michigan Southern tracks were used from Indiana Harbor. The New York Central had an interest in all these lines, the Indiana Harbor Belt, the Chicago, Indiana and Southern, and the Big Four. Through the acquisition of the Indiana Harbor-Danville line, the New York Central was enabled to reach valuable coal fields and form a direct connection over the Big Four with Cairo, at the junction of the Mississippi and Ohio rivers.

Chesapeake and Ohio.--The trains of the Chicago, Cincinnati and Louisville, part of the present Chesapeake and Ohio, began to run into Chicago in 1907. Although the constituent roads go back a number of years, for present purposes the incorporation of the Chicago, Cincinnati and Louisville on June 1, 1903, may be taken as the starting point. One of the constituent companies had already built from the Ohio state line to North Judson, Indiana; and the line was projected toward Chicago, via Griffith. However, it was not until April, 1907, that the Railway Age could announce that the Chicago, Cincinnati and Louisville trains began to run into Chicago; before that time the northern terminus of the line had been Griffith, Indiana; but during 1906 an extension had been built to Riverdale, Illinois, from which point entry to Chicago was secured by means of the Illinois Central. In 1910, the Chicago, Cincinnati and Louisville was sold to the Chesapeake and Ohio of Indiana, organized July 2, 1910.

Chicago, Terre Haute and Southeastern.--This road, now controlled by the Chicago, Milwaukee, St. Paul and Pacific, entered the Chicago Switching District over the tracks of the Baltimore and Ohio Chicago Terminal in 1913. The carrier was incorporated November 26, 1910, for the purpose of acquiring at foreclosure sale the property of the Southern Indiana Railway, which had been organized May 27, 1897, in Indiana, to purchase the Evansville and Richmond Railroad, chartered September 10, 1886. In 1906 the Southern Indiana Railway had completed an extension from Terre

Haute to Humrick, Illinois, 42 miles. The track from Humrick to Chicago Heights was built in the name of the Chicago Southern Railway, incorporated in 1904, and was finished in 1907. About three years later, the Chicago, Terre Haute and Southeastern Railway, of Illinois, was organized to acquire the Chicago Southern Railway and immediately turn it over to the Chicago, Terre Haute and Southeastern Railway, of Indiana. A lease was arranged with the Baltimore and Ohio Chicago Terminal in 1913 to use some twelve miles of its line to reach Harvey Junction, which is within the Chicago Switching District, and would enable the Chicago, Terre Haute and Southeastern to make rates to and from the Chicago district. A large portion of the carrier's freight is from the coal mines in Sullivan, Greene, Vermillion and Vigo counties, Indiana. The Chicago, Milwaukee, St. Paul and Pacific acquired the line in 1921 and made it the Terre Haute Division. About the same time, it took control of the Chicago, Milwaukee and Gary Railway, to effect a connection with the Terre Haute Division.

Summary of trunk-line history.--Within a period of eight years, starting in 1850, ten of the present trunk lines were located at the Chicago terminal. During the Civil War decade, only one more trunk line gained access to this district; during the seventies, three more appeared. During the great expansion of railroad enterprises which characterized the eighties, Chicago saw twelve more trunk lines. The remaining six trunk lines made terminals at Chicago in the next three decades. The following table lists all the trunk lines with their dates of entry into the Chicago Terminal District.

TABLE I

TRUNK LINES AND DATES OF ENTRY INTO CHICAGO

Railroad	Date of Entry
	<u>1850-1859</u>
Chicago & Northwestern (Omaha line).....	1850
Chicago, Burlington & Quincy (over the Galena)...	1850
New York Central (Lake Shore & Michigan Southern)	1852
Michigan Central (over Illinois Central).....	1852
Chicago, Rock Island & Pacific.....	1852
Chicago & Northwestern (Janesville line).....	1854
Chicago & Northwestern (Milwaukee line).....	1855
Illinois Central (Chicago branch).....	1856
Chicago & Alton.....	1857
Pennsylvania (Fort Wayne).....	1858

TABLE I--CONTINUED

Railroad	Date of Entry
	<u>1860-1869</u>
Pennsylvania (Pan Handle).....	1866
	<u>1870-1879</u>
Chicago, Milwaukee, St. Paul & Pacific (Milwaukee line).....	1873
Chicago, Milwaukee, St. Paul & Pacific (Omaha line).....	1872-75
Baltimore & Ohio.....	1874
	<u>1880-1889</u>
Chicago, Milwaukee, St. Paul & Pacific.....	1880
Grand Trunk (over Chicago & Western Indiana)....	1880
Wabash (West).....	1880
Chicago & Eastern Illinois (over Chicago & Western Indiana).....	1881
Chicago, Indianapolis & Louisville (over Chicago & Western Indiana).....	1882
New York, Chicago & St. Louis.....	1882
Erie (over Chicago & Western Indiana).....	1882
Atchison, Topeka & Santa Fe.....	1883
Minneapolis, St. Paul & Sault Ste Marie.....	1886
Chicago Great Western.....	1887
Illinois Central (West).....	1888
Cleveland, Cincinnati, Chicago & St. Louis (over Illinois Central).....	1889
	<u>1890-1899</u>
Wabash (East) (over Chicago & Western Indiana)..	1893
	<u>1900-1909</u>
Pere Marquette.....	1904
New York Central (Chicago, Indiana & Southern)..	1906
Chicago & Northwestern (newer Milwaukee line)...	1906
Chesapeake & Ohio.....	1907
	<u>1910-1920</u>
Chicago, Milwaukee, St. Paul & Pacific (Chicago, Terre Haute & Southeastern).....	1913

History of Smaller Switching and Terminal Lines

Chicago and Illinois Western Railroad.--This railroad was incorporated February 26, 1903, in Illinois, but was not opened until January 1, 1906. Its line is more than ten miles long, with its southwestern portion running along the Chicago Switching District from McCormick to Willow Springs, Illinois. It is owned by the Commonwealth Subsidiary Corporation, Peoples Gas Subsidiary Corporation, and the Illinois Central, each having one third interest.

The Manufacturers' Junction Railway.--This railway company was organized in 1903 in Illinois. Its main track extends from West Fifteenth Street, Cicero, to Thirty-fourth Street, Cicero, for a distance of 1.86 miles. It operates a freight house at Hawthorne, team tracks at Forty-eighth Avenue and Twenty-fifth Street, and serves four industries in addition to the Western Electric Company, its proprietary industry. It interchanges in- and outbound carload and less-than-carload traffic direct with the Illinois Central; Chicago, Burlington and Quincy; Chicago and Illinois Western; Belt Railway of Chicago; and Baltimore and Ohio Chicago Terminal; and with other railroads through these five direct connections.

The Illinois Northern Railroad Company.--This company was incorporated in 1901 in Illinois in the interest of the McCormick Harvester Company, later merged into the International Harvester Company. The McCormick Company had operated an extensive plant with some seventeen miles of plant railroad at Twenty-sixth Street, and maintained some steam locomotives and electric tractors for use on the road. With this plant road the Santa Fe, the Chicago, Burlington and Quincy, and the Chicago Junction had direct connections. An Interstate Commerce Commission report indicated that the three carriers received and delivered freight from and to the McCormick plant, and apparently performed certain switching services over the plant railroad without charge. The Illinois Northern seems to have been organized to take over the plant road and make extensions. It leased from the Santa Fe a switching track which ran from Twenty-sixth Street to Forty-ninth Street and which had been leased to the Santa Fe by the Grand Trunk, upon condition that the Illinois Northern should make deliveries to both trunk-line carriers from industries along the track at a dollar per car. This track is now the main line of the Illinois Northern. It serves a large number of industries other than its proprietary industry, the International Harvester Company. In 78 I.C.C. 483 (1923), it was mentioned that movements over the

Illinois Northern were often interrupted on account of numerous street car, railway and highway crossings, the necessary use of congested interchange points and the joint operation with trunk-line carriers over part of its line. Its principal business is to handle carload traffic and perform interchange between trunk lines, but it also handles less-than-carload freight, including trap cars, at its McCormick Station.

The Chicago, West Pullman and Southern Railroad Company.--

This railroad, now operating between West Pullman and Irondale, was incorporated October 28, 1909, in Illinois, to acquire the properties of the Chicago, West Pullman and Southern and the Calumet and Southeastern Railroad companies. The Chicago, West Pullman and Southern was originally built by a real estate syndicate to afford railway accommodations to industries which might locate on the properties of the syndicate. In 1903 the Plano Works of the International Harvester Company were located there. The little railroad had not been well maintained. To improve the property and service, the Plano Company and some other industries (the Whitman and Barnes Manufacturing Company and the Chicago Malleable Castings Company) bought the road, with the Plano owning the greater portion of the \$50,000 capital stock.

The Calumet and Southeastern was another plant railroad serving the Wisconsin Steel Company at Irondale. When the International Harvester interests purchased the Plano Works and the Wisconsin Steel Company, they also secured the ownership of the Chicago, West Pullman and Southern and the Calumet and Southeastern.

In 1909 the present Chicago, West Pullman and Southern was organized, under which the two former roads were merged and connected by means of trackage rights over the Illinois Central and the Chicago, Rock Island and Pacific. At present, the principal business of the carrier is to switch carload freight though it maintains a freight station at which it handles less-than-carload freight for the general public.

Pullman Railroad Company.--This company was incorporated August 25, 1906, in Illinois. Its entire stock was owned by the Pullman Car and Manufacturing Corporation. On May 27, 1921, the Interstate Commerce Commission ruled that this company was a common carrier. It serves as a connecting railroad between the Pullman, Burnside and Kensington industrial districts, all within Chicago. It does no intraplant business for the proprietary industry and uses the plant tracks only for spotting cars.

Chicago Short Line Railway Company.--This company was incorporated December 8, 1900, in Illinois. At the time of federal valuation in 1919, the company was reported to operate three widely

disconnected units consisting of 1.122 miles of first main tracks, 0.318 miles of second main tracks, and 6.172 miles of yard track and sidings. In 78 I.C.C. 480 (1922), the official records revealed that a controlling amount of the stock of the company was held by interests active in two industries which furnished over 90 per cent of the cars handled annually by the company. The two industries were the By-Products Corporation, the largest commercial coke plant in the world, and the Steel and Tube Company of America, which apparently was successor to the Iroquois Iron Company, formerly considered the proprietary industry of the Chicago Short Line. Much stock said to be the property of the two industries, was held in the name of H. S. Handy, the retired president of the By-Products Corporation, of the chairman of the board of directors of the Steel and Tube Company, and of a holding company owned by an estate with considerable holdings in the Steel and Tube Company.

Chicago and Calumet River Railroad Company.--The company was incorporated August 12, 1901, in Illinois, to build from Chicago to Hammond with such branches as deemed necessary. It is controlled by the Western Steel Car and Foundry Company through stock ownership. The carrier had leased its property from the Car and Foundry Company up to May 23, 1917, when it purchased it. At least a major portion of the mileage was constructed about the year 1884 by the United States Rolling Stock Company.

The carrier operates a single track industrial switching railroad in the South Chicago district from Burnham to Hegewisch, consisting of single track (more than a mile long) and yard track and sidings; a total of some twenty miles.

Calumet Western Railway Company.--The company was incorporated September 2, 1897, in Illinois, but was not granted a city charter until July 6, 1899. The road was opened in June, 1901. At present, it is controlled one-half by the Indiana Harbor Belt and one-fourth each by the Pennsylvania and the Rock Island. The line extends from a connection with the Fort Wayne near One Hundred and Fifth Street, Chicago, to a connection with the South Chicago and Southern at One Hundred and Thirtieth Street.

Gary and Western Railway Company.--The road was incorporated October 6, 1906, in Indiana. Its owned mileage extended easterly from a connection with the tracks of the New York Central at Ivanhoe, Indiana, to a connection with the tracks of the same company at Gary, Indiana, a distance of 7.53 miles. It was a non-operating company, formerly controlled by the Chicago, Lake Shore and Eastern Railway (Elgin, Joliet and Eastern, lessee). Up to 1928, its property had always been used jointly by the Indiana Harbor Belt Railroad and the Chicago, Indiana and Southern Railroad,

and the latter's successor, the New York Central Railroad, under a reciprocal arrangement with the Chicago, Lake Shore and Eastern Railway. Poor's Manual of Railroads for 1929 reported the acquisition on June 20, 1928, by the New York Central of a line 7.53 miles long from the Gary and Western. In exchange the New York Central conveyed to the Chicago, Lake Shore and Eastern a segment 7.53 miles long of the former Chicago, Indiana and Southern Railroad. Since 1908, as an incident to certain local relocations to enable the construction and service of the steel and other plants at Gary, the New York Central and its predecessor, the Chicago, Indiana and Southern, have operated the Gary and Western under lease and the Chicago, Lake Shore and Eastern has operated this segment of the Chicago, Indiana and Southern under lease.

South Chicago and Southern Railroad Company.--Incorporation of this company took place June 5, 1901, in Illinois, representing a consolidation of the properties of the South Chicago and Southern Railroad, incorporated September 13, 1881, in Illinois; the State Line and Indiana City Railway, incorporated July 25, 1887, in Indiana; and the Calumet River Railway, incorporated March 5, 1883, in Illinois. The Calumet River Railway, Hegewisch to South Chicago (about four miles), has been operated jointly by the Pennsylvania and the Chicago Terminal Transfer and the latter's successor, the Baltimore and Ohio Chicago Terminal, since the consolidation of the South Chicago and Southern in 1901.

Chicago Heights Terminal Transfer Railroad Company.--The company was incorporated in March, 1898, in Illinois, to build from different points in the town of Bloom, Cook County, to various railroads and industries located in that town, with a belt line connecting the railroads. At first the road was controlled by the Chicago Heights Land Association, through ownership of practically all of the capital stock. In 1927 the entire capital stock of the company was bought by the Chicago and Eastern Illinois for \$1,187,500 cash or \$247 a share, par \$100. The Interstate Commerce Commission stipulated that the road must be operated as a separate road owing to the objections of certain other carriers also connecting with it. The Chicago and Eastern Illinois desired to secure better terminal facilities in the rapidly growing Chicago Heights district, which is on the border of the Chicago Terminal District. The road operates approximately seven miles of main tracks in and about Chicago Heights, and serves more than eighty industries.

St. Charles Air Line.--On June 23, 1852, the Illinois Central secured an amendment to its charter permitting it to build a railroad from Twelfth Street to the South Branch of the Chicago River. This road, known as the St. Charles Air Line, served as

an inner belt railroad for the Illinois Central; Michigan Central; Lake Shore; Chicago, Burlington and Quincy; Galena and Chicago Union; Chicago and Rock Island; and Chicago and Northwestern railroads.¹ It was built by the Illinois Central and completed in 1856 at a total cost of \$50,000.² The Illinois Central subsequently sold three-fourths of its interest in the St. Charles Air Line to the Michigan Central, the Chicago, Burlington and Quincy, and the Chicago and Northwestern, but operated the line for the three owners. At present, the line, 0.76 miles long, is used principally as a connecting railroad for passenger traffic purposes. It has industries which all railroads are privileged to serve with their own engines.

Chicago Union Station Company.--This company was incorporated July 3, 1913, in Illinois, to build and maintain a Union Passenger Station at Chicago. By agreement of July 2, 1915, the Burlington, the St. Paul, the Fort Wayne, and the Pan Handle each became a one-fourth owner of the company (each holding \$700,000.00 of \$2,800,000.00 capital stock outstanding). The four carriers are to use the station during the corporate existence of the company up to July 3, 1963. By another agreement of September 18, 1915, the Chicago and Alton was admitted as a tenant of the station, on its agreement to pay a portion of the rental and other expenses. The station was opened for operation May 17, 1925. The company also operates a United States Mail Terminal and Transfer Station.

Chicago Tunnel Company.--This company was incorporated March 27, 1912, in Illinois, to purchase the Illinois Tunnel Company which had been organized in 1903 to acquire the tunnel property of the Illinois Telephone and Telegraph Company. The Illinois Tunnel Company intended to use the tunnel for keeping a safe system of underground cables in the congested "loop district." In 1904 the Chicago Warehouse and Terminal Company was organized to construct terminal facilities on railroad and other private property. The two companies united their interests to build tunnels, shafts, elevators, tracks, and other terminal facilities for transportation purposes. The entire system of the Illinois Tunnel Company, consisting of 52 miles of small single-track freight tunnels, was put in operation in September, 1907. In 1912 the Illinois Tunnel

¹Caroline E. MacGill, History of Transportation in the United States Before 1860 (Washington, D.C.: Carnegie Institute, 1907), p. 544.

²Illinois Central Railroad Company, Annual Reports, 1855, 1856, 1857.

property was sold to the newly organized Chicago Tunnel Company. The property of the Chicago Warehouse and Terminal Company, consisting of some ten miles of tunnels and other terminal facilities, is operated in conjunction with the Chicago Tunnel Company, as it was with the Illinois Tunnel Company.

Both the Chicago Tunnel Company and the Chicago Warehouse and Terminal Company are controlled through stock ownership by the Chicago Tunnel Terminal Corporation, organized in Delaware June 7, 1923.

Chicago Produce Terminal Company.--This company was incorporated March 6, 1928, for the construction and operation of a fruit and produce terminal at Ashland Avenue and Twenty-seventh Street, Chicago. It commenced operations June 15, 1929. It has a terminal railroad and approximately one hundred acres of land, devoted to the handling of fruit and produce arriving and departing over all trunk lines entering Chicago. It represents a total investment of \$8,000,000, of which the Illinois Central and the Santa Fe have advanced half each.

Summary.--All the smaller switching and terminal lines have direct connections with either trunk lines or belt and switching lines, or both. With one or two exceptions, they are all located within the Chicago Switching District: the St. Charles Air Line, Chicago Union Station, and Chicago Tunnel lying in the heart of the city; the Illinois Northern, Manufacturers' Junction, and Chicago and Illinois Western extending toward the southwest; most others situated in the southeastern section of the district.

It is difficult to determine the original purposes for which all these lines have been built. With the plain exception of the Chicago Union Station built to provide passenger facilities, some of them probably have been established as plant railroads for moving cars between outside railroads and points within the plant, or moving material between various departments of the plant. Probably some have been promoted by real estate interests to provide railway connections for industries which might locate on their properties. Others may have been constructed for other purposes, such as the securing of "indirect rebating." That is, a short line might be built from an industrial plant to a connection with two or more railroads, and then a disproportionate division of the through rates might be demanded for the terminal switching service performed. This practice has long ceased under the orders of the Interstate Commerce Commission, but it may have been the origin of some of these lines.

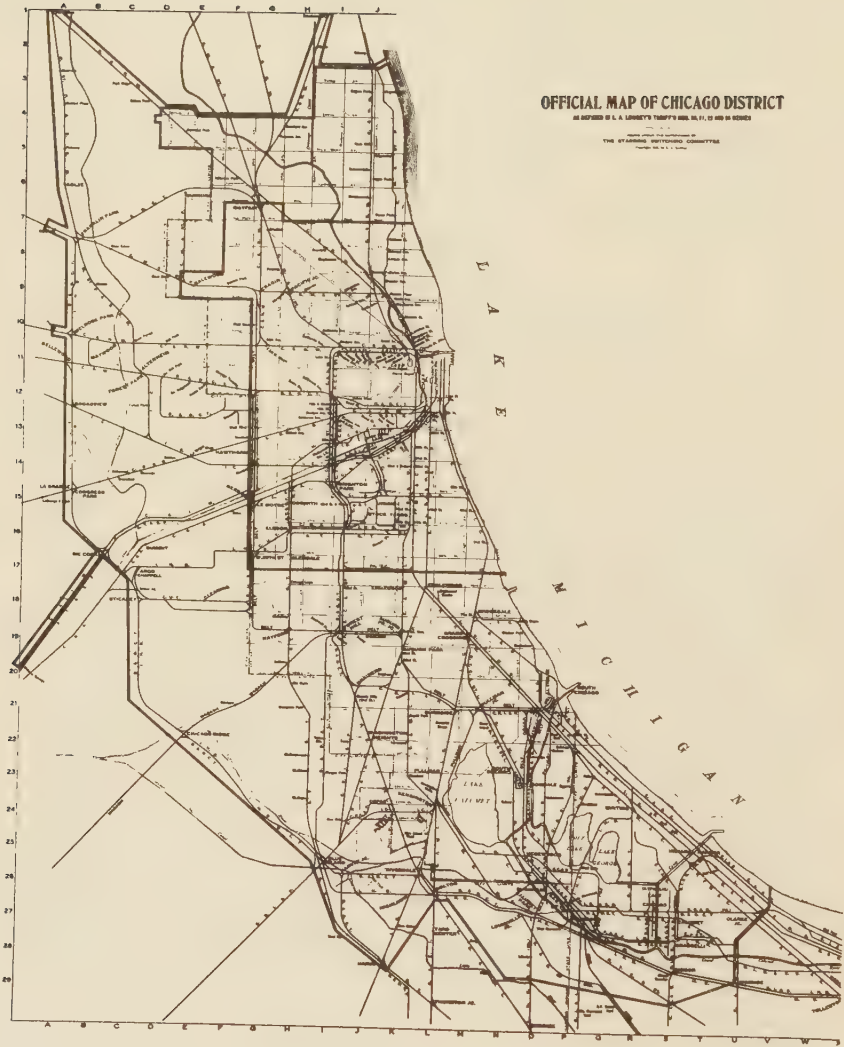
Through the processes of reorganization and evolution, some of the small lines have been absorbed by trunk lines or belt and switching lines, and some have enlarged their scope of functions

from originally serving one or more proprietary concerns to now serving a larger number of industries or even the general public. Thus, the latter not only perform industrial switching, but also interchange between railroads and less-than-carload service for all shippers who use them.

The ancestral histories of some of the lines date back to the early 1880's; but most of them were promoted during the decade 1900-1910 and have carried their names since without change. The following table is a summary of these lines and dates of their incorporation.

TABLE II
SMALLER SWITCHING AND TERMINAL LINES AND
DATES OF INCORPORATION

Name of Carrier	Date of Incorporation
St. Charles Air Line.....	1852
Calumet Western.....	1897
Chicago Heights Terminal Transfer.....	1898
Chicago Short Line.....	1900
South Chicago & Southern.....	1901
Chicago & Calumet River.....	1901
Illinois Northern.....	1901
Chicago & Illinois Western.....	1903
Manufacturers' Junction.....	1903
Pullman.....	1906
Chicago Warehouse & Terminal.....	1904
Chicago Tunnel, 1912	
Gary & Western.....	1906
Chicago, West Pullman & Southern.....	1909
Chicago Union Station.....	1913
Chicago Produce Terminal.....	1928



CHAPTER III

HISTORY OF BELT AND SWITCHING LINES

In accordance with the definition in the introductory chapter,¹ the seven belt and switching lines of the Chicago Terminal District are the Chicago River and Indiana; Chicago Junction; Chicago and Western Indiana; Belt Railway of Chicago; Indiana Harbor Belt; Baltimore and Ohio Chicago Terminal; and Elgin, Joliet and Eastern. The history of each of these lines is presented in this chapter.

The Chicago River and Indiana Railroad Company

The Chicago River and Indiana Railroad Company was incorporated February 11, 1904, in Illinois, but did not begin operation until 1908. It proposed to build a railroad from Chicago to a point on the boundary line between Illinois and Indiana. At present it does a freight switching business between the industries located on or adjacent to its tracks and a number of railroads and lake lines entering Chicago. By agreement with the Santa Fe, the Indiana Harbor Belt, the Pan Handle, running from 20 to 97 years, the company has the use of approximately 25.05 miles of additional trackage, reaching important manufacturing regions.

In 1922 the company was acquired by the New York Central through stock-ownership. The Chicago Junction Railway was leased to the company for a long term. Thus the New York Central operated the Chicago Junction through the company, though the New York Central was not permitted to purchase either properties or stock of the Chicago Junction.

The Chicago Junction Railway Company

The Chicago Junction Railway Company, incorporated on January 1, 1898, had its origin in 1865, when the Union Stockyards and Transit Company was chartered in Illinois to construct stockyard facilities and tracks connecting these facilities with the

¹Chap. 1 of the complete dissertation, to be found only in the University of Chicago Libraries.

different railroads entering Chicago. The charter also provided that the stockyards company might either engage in transporting stock and other freight over its tracks on its own account, or lease that privilege to others. The Chicago Junction had been known as the "Transit Department" of the Union Stockyards and Transit Company until 1898, when the transit property was leased to the Chicago and Indiana State Line Railway, which in turn was consolidated with the Chicago, Hammond and Western Railroad under the title of the Chicago Junction Railway. The historical background of these constituent companies, namely, the Union Stockyards and Transit Company, the Chicago and Indiana State Line, and the Chicago, Hammond and Western, will be studied separately. Then the control of the Chicago Junction by the New York Central through the Chicago River and Indiana will be discussed.

The Union Stockyards and Transit Company.--This company owns the Union Stock Yards. The first stock yards were opened in 1848, and by 1865 there had existed six individually owned stock yards. The situation was unsatisfactory to the carriers, which frequently encountered delays in loading and unloading stock and transferring them from one road to another; to the live-stock dealers, who were forced to go to several yards; and to the live stock, which were driven from yard to yard through the streets of the city with consequent congestion of other traffic and damage to the animals. The carriers and live-stock interests agreed to devise a centralized plan; the result being the establishment of the Union Stockyards and Transit Company. Nine carriers agreed to give up their scattered stock yards, and handle live stock through the Union Yards. They contributed over nine-tenths of the \$1,000,000 paid-in capital, the balance probably representing live-stock interests. By the careful layout of tracks and stock facilities including pens, chutes, etc., cattle could now be easily transported from one road to another without risk. Thus, the undertaking was regarded as a joint railroad enterprise, providing a common live-stock terminal so as to facilitate the marketing of live stock. From 1865 to 1892 the majority of the directors on the Union Stockyards Company's board represented railroad interests. The carriers, however, seem to have gradually disposed of their stock holdings, and new financial interests, probably the packers, acquired control of the company. In 1894 the carriers' directorial representation was reduced to four against seven for the new interests. And soon the four railroad directors all resigned. At present, the Union Stockyards Company is said to be owned by an eastern holding corporation, the owners of which cannot be determined.

The Chicago and Indiana State Line Railway.--This company

was incorporated in 1880 to build a railroad from the Chicago and Alton, near the point where that road crossed the South Branch of the Chicago River, southeast to the Union Stock Yards and thence to a junction with the Pittsburgh, Fort Wayne and Chicago near the Indiana state line. The plan was to construct then only the section from the Chicago and Alton to the Union Stock Yards. The company was owned by the same interests that owned the Stock Yards Company, and operated tracks of the Stock Yards Company. However, the actual lease of the tracks to the company for 50 years was not announced until January 1, 1898; and in that year the company had extended only 3.75 miles of track of its own, while the stockyard tracks of different kinds had exceeded one hundred miles. In the same year the Chicago and Indiana State Line merged with the Chicago, Hammond and Western under the name of Chicago Junction. After the sale of the Chicago, Hammond and Western property in 1907, the Chicago Junction was nothing more than the Chicago and Indiana State Line, which, having little constructed mileage of its own, was practically the Transit Department of the Union Stockyards and Transit Company. In 1913 the network of stockyard tracks was leased to the Chicago and Indiana State Line in perpetuity.

The Chicago, Hammond and Western Railroad.--This road was chartered April 21, 1896, in Illinois. At the time of consolidation with the Chicago and Indiana State Line, in 1898, it had extended from Whiting, Indiana, through Blue Island and McCook, to Franklin Park, Illinois, though the section from Blue Island to McCook was crossed by trackage rights over the Chicago Terminal Transfer Railroad, later known as the Baltimore and Ohio Chicago Terminal. In return for the trackage accommodation, the Chicago, Hammond and Western accorded the Chicago Terminal Transfer similar rights over the former's rails to be laid from McCook to Franklin Park. This construction was completed in 1897. The Chicago, Hammond and Western also had trackage rights over the Terminal Railroad, later merged into the Indiana Harbor Belt, from Argo near McCook to the Union Stock Yards, and this trackage arrangement evidently aimed at securing a share of the stock and meat traffic there. The main line of the Chicago, Hammond and Western from Whiting to Franklin Park formed an "outer belt" of the Chicago Junction, so called for a time.

A predecessor of the Chicago, Hammond and Western was the Hammond and Blue Island Railroad, which built in 1896 that portion of the Chicago, Hammond and Western from Hammond northeast to Whiting and west to Blue Island. Affording connections with the principal eastern and western trunk lines, the Hammond and Blue Island was used to secure, for some packing interests at Hammond,

live stock from the West directly without bringing them into the Union Stock Yards, and also to send outbound products without taking them through the Chicago district. After absorbing the Hammond and Blue Island and securing trackage over the Terminal Railroad, the Chicago, Hammond and Western became a competitor of the Union Stockyards Company. Meanwhile the stock-yard interests were considering external locations. To eliminate competition and extend facilities, the Chicago and Indiana State Line, in the interest of packing house industries, consolidated with the Chicago, Hammond and Western. Some ten years later, however, the Chicago Junction sold the Chicago, Hammond and Western property to the Indiana Harbor Belt for two reasons: first, the necessary betterments and improvements of the property involved larger sums than the Chicago Junction was willing to invest, and second, the terms of sale were considered highly advantageous to the seller. About this time, the New York Central interests were trying to make the Indiana Harbor Belt the owner of their terminals in and near Chicago, and to enable the Indiana Harbor Belt to purchase the "outer belt" property, guaranteed the \$2,500,000 bonds issued by the Indiana Harbor Belt for payment.

Operation of the Chicago Junction by New York Central.--

In 1922 the New York Central acquired control of the Chicago Junction. Thus, the affiliation of the Chicago Junction with the Chicago, Hammond and Western was again renewed, for the latter's owner, Indiana Harbor Belt, was also a member of the New York Central family. The case may be studied from the viewpoints of (1) the New York Central and the Chicago Junction, (2) the intervening carriers, (3) shippers, (4) the Chicago Terminal Commission, and (5) the Interstate Commerce Commission.

The New York Central partly controlled the Indiana Harbor Belt, which connected it with the Chicago River and Indiana at Elsdon and with both the Chicago River and Indiana and the Chicago Junction at Forty-ninth and Morgan streets. The New York Central needed additional terminals in Chicago, but could not build them because the city was already too congested. The Chicago River and Indiana and especially the Chicago Junction were strategically located. After selling its Chicago, Hammond and Western property in 1907, the Chicago Junction had since felt the inadequacy of yard facilities for classification and interchange. Through a direct financial backing to the Chicago Junction, the New York Central desired to operate the Indiana Harbor Belt and the Chicago Junction as complementary properties; for instance, to the former might be assigned all the heavy interchange business while to the latter might be assigned certain kinds of industrial movement.

The seven intervening carriers, competitors of the New York

Central, were opposed to the proposition, but offered to withdraw their opposition if allowed to join the New York Central. They advanced the following arguments: (a) the Chicago River and Indiana and the Chicago Junction had been neutral terminals and should be open to all carriers so that shippers would have competitive service; (b) through control of the Chicago Junction, the New York Central would be in a position to divert much competitive line-haul traffic to its own rails, and thus cause the intervening carriers to lose earnings; (c) the Chicago Junction, if controlled by the New York Central, could not and would not fairly handle the car supply for the district.

The shippers might be divided into two groups, one of which objected to the attempt of the New York Central for fear of losing the competitive service from all trunk lines serving the district; the other group would not object, if assured of the same impartial service they had been enjoying.

The Chicago Railway Terminal Commission apparently preferred to have the Chicago River and Indiana and the Chicago Junction remain neutral, pending its investigation of the terminal situation and formulation of terminal policies concerning all the railroads entering Chicago.

The majority of the Interstate Commerce Commission approved the application of the New York Central, upon the ground that the carrier's terminals in Chicago were relatively inadequate in comparison with those of the competitive eastern trunk lines. They also considered the relief of traffic congestion in the city and the resulting economy to the shipping public, by letting the New York Central operate the Chicago Junction in conjunction with the Indiana Harbor Belt. They said: "Where such a transaction as the present one would clearly facilitate the movement of traffic through a highly congested district, the circumstances that other carriers would suffer a loss of revenue is not controlling." However, the Commission's authorization to the New York Central was subject to seventeen conditions, the main purpose of which was to maintain the neutrality of the Chicago River and Indiana and the Chicago Junction as far as possible, and to leave freedom for public agencies to adopt any policy for unified or co-ordinated terminals.¹

The case was taken to court later by the Baltimore and Ohio, the Pennsylvania, and the Erie, and other carriers, only to meet the decision that the complainant carriers had no "suitable interest" in the question involved. The Supreme Court, however,

¹Chicago Junction Case, 71 I.C.C. 631 (1922).

reversed the decision on March 3, 1924, and ordered the lower court to determine "whether, in the hearing before the Interstate Commerce Commission preceding the Commission's order allowing the New York Central to acquire the control of the terminal lines, facts have been presented justifying the Commission's order." The case is still pending.

The Chicago and Western Indiana Railroad Company
and the Belt Railway Company of Chicago

These two companies are very closely related, most of the tracks leased and operated by the Belt Railway belonging to the Chicago and Western Indiana Railroad. Their functions, however, are different. The Belt Railway mainly serves to connect various trunk lines entering Chicago and transfer their cars without entering the city; the Chicago and Western Indiana has as its chief function the furnishing to certain trunk lines of terminal facilities.

The Chicago and Western Indiana Railroad.--This railroad, incorporated January 26, 1882, had three predecessors: (1) the old Chicago and Western Indiana Railroad, incorporated June 6, 1879, to build from Dolton, Illinois, northward to Chicago a certain mileage as part of the Chicago and Eastern Illinois Railroad, which then used the Pittsburgh, Cincinnati and St. Louis (present Pan Handle) track from Dolton to Chicago; (2) the South Chicago and Western Indiana Railroad, incorporated April 20, 1880, to construct from a point on the line of the Chicago and Western Indiana (Oakdale near Ninety-first Street) to a point on the north bank of the Calumet River for the purpose of giving to the lessees of the Chicago and Western Indiana a connection with the iron and lumber interests at South Chicago; and (3) the Chicago and Western Indiana Belt Railway, incorporated April 22, 1881, to build a line between the towns of Hyde Park and Lake View with the purpose of transferring traffic between the several railroads then in Cook County, Illinois. (2) and (3) were rather subsidiaries organized to build branches for (1), the parent company. The three companies, however, were actually consolidated January 26, 1882, under the present name of Chicago and Western Indiana Railroad, with a capital stock fixed at \$5,000,000 and a bonded debt limited to \$10,000,000. Since (2), merely part of the general scheme of the Chicago and Western Indiana, does not require special discussion, and (3) will be separately studied later, the historical background of (1) only will be elaborated here.

Realizing the increased value of properties in Chicago and difficulties faced by new railroads in obtaining entrance of their

own into the city at reasonable cost, J. B. Brown, a Chicago real estate operator, and F. W. Huidesoper, president of the Chicago and Eastern Illinois, proposed in 1879 to build a terminal line into Chicago, under the title of Chicago and Western Indiana. From the very beginning, however, the company, in extending its line to Chicago, encountered various resistances from the city, property owners, and other carriers. At least two ordinances giving the company the right to build its road into the city were vetoed by the Mayor of Chicago. The company sought the aid of the courts, and finally in 1880 obtained an injunction restraining the city officers from interfering with the laying of its tracks, though the Superintendent of Streets of the city, in spite of the injunction, once called on a mob to oppose track-laying and to tear up and burn the ties. The property owners affected charged that the company was simply the Chicago and Eastern Illinois which already had an entrance into Chicago (over the Pittsburgh, Cincinnati, Chicago and St. Louis), under another name. Nevertheless, early in 1880, the company had completed from the northern terminus of the Chicago and Eastern Illinois at Dolton northward sixteen miles into Chicago, and was ready to cross the tracks of the Chicago, Rock Island and Pacific and the Lake Shore and Michigan Southern. These carriers resisted, suits followed, and at last, the company won a favorable decision from the Illinois Supreme Court. Under the protection of the police, the company laid its tracks toward Van Buren Street, though the Lake Shore and Michigan Southern kept a locomotive on its track to obstruct a crossing and the Illinois Central likewise placed a locomotive on its track¹ used by the Chicago, Burlington and Quincy at Sixteenth Street. It should be noted that the company was to bring not only the Chicago and Eastern Illinois, but also the Wabash (West) and the Grand Trunk, to the heart of the city. Opposition from the carriers and the city forced the company to abandon its right to extend north of Harrison Street. The Lake Shore and Michigan Southern and the Chicago, Rock Island and Pacific had constructed their station on Van Buren Street, hence if the company came so far north, it would have to take up a street further east and increase the obstacles to crossing that section from east to west. It erected the Dearborn Station in 1885.

About 1881 the Chicago and Western Indiana built a new branch from Pullman Junction to Hammond, to join the Louisville, New Albany and Chicago (present Monon Route) and the Chicago and Atlantic (now the Erie), which two roads were then building toward

¹ Railroad Gazette, September 17, 1880, p. 498.

Chicago. Thus, the company's lessees were increased from three to five. The policy of the company was to open its line to all carriers at a fair rental without discrimination. The lessees, however, soon became desirous of controlling the property for themselves so that they could securely guard their interests at the gateway to Chicago. Meanwhile, the promoters of the company had realized that they were undertaking a task too big for them. During the latter part of 1882 the lessee carriers bought a controlling interest in the company.

The Atchison, Topeka and Santa Fe began to use the Chicago and Western Indiana terminal facilities in 1887.

The Belt Railway of Chicago.--This name was adopted by the company formerly known as the Chicago and Western Indiana Belt Railway Company (organized in 1881 and consolidated with the Chicago and Western Indiana Railroad in 1882). After acquiring the Chicago and Western Indiana Railroad, the five proprietary companies thought it advisable to operate the Chicago and Western Indiana belt line, including the South Chicago branch, as a separate corporation, in which all the carriers entering Chicago might participate. Therefore, they organized on November 22, 1882, the Belt Railway Company of Chicago, the purpose of which was to "construct, complete and operate" a line of railroad running from a point on Lake Michigan, near Belmont Avenue, westwardly, southwardly, and then eastwardly to a junction with the main line of the Chicago and Western Indiana, together with a branch to the lake at Eighty-seventh Street, thus completing the semicircle from lake to lake. (The charter also permitted the company to have such branches as necessary to reach warehouses, lumber or stock yards, and docks in the vicinity of the road.)

It can be readily seen that the chartered route was the Chicago and Western Indiana belt lines with some extension, they having already been completed from South Chicago near the lake to a connection with the Chicago, Milwaukee and St. Paul at Cragin near North Avenue. The gap between Cragin and the lake has never been filled. Some trunk line stems of the Chicago, Milwaukee, St. Paul and Pacific and the Chicago and Northwestern approached Chicago through that opening, but the Belt Railway connects both railroad systems at Cragin. It was, then as now, a leasing and operating organization. It leased on March 31, 1883, for 999 years, the Chicago and Western Indiana belt line properties, just mentioned, at a fixed rental of \$130,000 per annum. Its five owners invited other carriers to purchase its stock, but the latter suspected it might be a great speculation, because of its apparently large capitalization. It took years to effect a plan of joint ownership of the Belt Railway by trunk lines entering Chicago.

One reason for this delay seems to have been the proposed construction of different belt-line projects by railroad and other interests.

In 1881 Chicago saw at least four or five belt projects, including the Chicago and Western Indiana belt under construction.¹ The tendency seemed to be to locate them from lake to lake in a semicircular shape around Chicago, with their southern termini in South Chicago or Hyde Park (township) and northern termini in or near Lake View (town). However, none of them was carried out except the one last mentioned. The purposes of the projects may be summarized: (1) to transfer freight, passengers, and express, or freight only between railroads in Chicago; (2) to afford rapid transit facilities demanded by the rapid growth of manufacturing interests; and (3) to extend these facilities to the distant unoccupied land where plants might be located for certain economic advantages.

In 1888 the Chicago Union Transfer Railroad Company was organized to build a sixty-mile lake-to-lake belt line, nearly parallel with the existing Belt Railway of Chicago, with a big clearing yard, known as the "Stickney" scheme, as an additional² feature. Among its stockholders were eleven trunk-line carriers, including the Chicago and Eastern Illinois which was also an important owner of the Belt Railway of Chicago. The Stickney clearing yard, following the idea of a clearing house for banks and situated about twelve miles southwest of the city of Chicago, was designed to simplify the transfer and other terminal work. The period 1880-1890 found more trunk lines seeking entrance into Chicago than any other decade. The increase in the number and tonnage of the railroads³ entering Chicago made it necessary to provide an efficient means of transfer between them. The Stickney project, however, was dormant between 1888 and 1895, in which year it was revived. It was sold to the Chicago Transfer and Clearing Company, organized in 1899 in Delaware as a holding company for the Clearing industrial district adjoining Chicago. Construction of the Stickney yard began in 1900. The original design included

¹ See Railroad Gazette, August 13, 1880, p. 434; April, May, July, November, 1881, pp. 242, 254, 366, 379, 420, 657.

² The Baltimore & Ohio; Pennsylvania; Chicago & Northwestern; St. Paul; Rock Island; Illinois Central; Northern Pacific; Chicago Great Western; Santa Fe; Burlington; Chicago & Eastern Illinois. See the Railroad Gazette, September 9, 1892, p. 668.

³ Ibid.

circular tracks one mile in diameter, around which yards would be laid out for railroads entering the city. In these yards, the freight for each road would be classified, and the freight for other lines would be transferred by means of the circle to their desired yards. The scheme, however, was not carried out.

On November 1, 1912, a plan of joint ownership of the Belt Railway of Chicago together with the purchase of the Chicago Union Transfer property was matured by twelve trunk-line carriers.¹ Five of them had been owners of the Belt Railway, and five others had been stockholders of the Chicago Union Transfer. The Chicago and Eastern Illinois, having interests in both belt enterprises, was said to have done much in consummating the joint ownership plan. Other stockholders of the Chicago Union Transfer that did not join the plan, probably were interested in other terminal properties, for instance, the Chicago and Northwestern and the St. Paul had entered an agreement with the Michigan Central and the New York Central in 1911 to control the Indiana Harbor Belt, and the Baltimore and Ohio had bought the Chicago Terminal Transfer properties in 1910. The plan of jointly owning the Belt Railway by the twelve carriers may be summarized as follows:

I. Extension of the Belt Railway facilities:

- A. The Chicago and Western Indiana to purchase for \$4,400,000 the property of the Chicago Union Transfer, including the Stickney clearing yard and track leading therefrom to Elsdon. Same property to be leased to the Belt Railway of Chicago.
- B. The Chicago and Western Indiana to build when required an auxiliary clearing yard near South Chicago for use by the Belt Railway.
- C. The Chicago and Western Indiana to elevate tracks for the Belt Railway so as to avoid all grade crossings eventually and speed transfer service.

II. Capitalization, ownership and administration:

- A. Capital stock of Belt Railway to be increased from \$1,200,000 to \$4,000,000.
- B. Each of the twelve owning carriers to buy 2,400 shares, par \$100, of the \$2,880,000 issued stock.
- C. Each owner to have a director on the board of the Belt Railway.

¹ Chicago & Eastern Illinois; Wabash; Grand Trunk; Erie; Monon; Santa Fe; Rock Island; Illinois Central; Pennsylvania; Burlington; Soo Line; Chesapeake & Ohio.

III. Rentals to the Chicago and Western Indiana:

- A. $4\frac{1}{2}$ per cent on \$14,000,000, the estimated value of the Belt Railway as of May 11, 1911.
- B. $4\frac{1}{2}$ per cent on \$4,400,000, the cost of purchasing the Chicago Union Transfer.
- C. 4 per cent on \$996,000, bonds of the Chicago and Western Indiana issued for additions and betterments to the property of the Belt Railway between May 11, 1911, and September 2, 1912.
- D. Interest on all improvements and additions for the Belt Railway after September, 1912.

IV. Some operating details:

- A. The Belt Railway to let owning carriers use its main lines between Cragin and South Chicago, and between Argo and Elsdon for interchange of freight, and to and from each of the clearing yards.
- B. The Belt Railway to maintain a clearing house at Clearing for the joint use of all owning carriers; to interchange cars for them at the Clearing yards.
- C. The Belt Railway to do local and industrial switching with profits, if any, credited to rentals and expenses.

The main idea of this joint ownership of the Belt Railway was to remove a large amount of interchange from the congested downtown terminals to the outer clearing yards. The concentration of the interchange service would make it possible to employ experts to operate specialized facilities, such as big hump yard operation. Work of rearranging and making additions to the Clearing Yard of the Belt Railway began in 1913 and continued in 1914, and in the following year, the yard was placed in operation. The expenditures for this purpose during the three years amounted to more than \$4,000,000.¹

In 1923 the Pere Marquette became a joint owner of the Belt Railway, owning 2,400 shares of the \$3,120,000 issued stock (increased from \$2,880,000 in 1923).

The Indiana Harbor Belt Railroad Company

The Indiana Harbor Belt in its present form represents a consolidation of some four precedent railway corporations, organized originally about the year 1896. These companies were the Hammond and Blue Island, the Chicago, Hammond and Western, the

¹ Belt Railway Company of Chicago, Annual Report, 1915, pp. 6-7.

East Chicago Belt, and the Terminal Railroad. The Hammond and Blue Island was built in 1896 by the G. H. Hammond Packing Company, then located in Hammond, Indiana. The road, running east from Hammond to Whiting and west to Blue Island, and affording connections with eastern and western trunk lines, was intended, as revealed by the packing interests, to secure live stock from the West without bringing them into the Union Stock Yards and also to ship outbound products without taking them through the Chicago district, thus to reduce the intolerable delay in transportation. It is hard to say whether this was the real reason or not, since other industrial concerns were building similar roads at the same time to secure an indirect form of rebating through demanding and receiving from trunk lines disproportionate divisions of through rates.

In the same year the Chicago, Hammond and Western was incorporated apparently by the same interests to absorb the Hammond and Blue Island, and also to complete extension thereof to a connection with the St. Paul at some point in Du Page County. The Chicago Terminal Transfer (Baltimore and Ohio Chicago Terminal) already owned a track from Blue Island to McCook, reaching into the quarry section, and double-tracked the line to give the Chicago, Hammond and Western trackage over it. In return for this accommodation, the Chicago, Hammond and Western accorded the Chicago Terminal Transfer similar rights over its rails laid in 1897 from McCook to Franklin Park.

The East Chicago Belt was also incorporated in 1896 to build a railroad from Hammond to the Grand Calumet River. Trackage over this entire line was immediately obtained by the Chicago, Hammond and Western.

In the same year the Terminal Railroad was incorporated and later was constructed from Argo, near McCook, to the Union Stock Yards. It issued some \$725,000 bonds of an authorized amount of \$1,500,000, on the guarantee of the Michigan Central. An agreement was reached between the Michigan Central, the Terminal Railroad, and the Chicago, Hammond and Western by which the Michigan Central was given control of the Terminal Railroad through a perpetual lease; the Michigan Central was given trackage rights over the Chicago, Hammond and Western; and the Chicago, Hammond and Western was given trackage rights over the Terminal Railroad. The reason for this arrangement is obvious. The Michigan Central then as now used the tracks of the Illinois Central from Kensington into Chicago. They desired an independent entrance to the Union Stock Yards to secure the valuable traffic there. The route of the Chicago, Hammond and Western from Hammond to Argo was convenient for the Michigan Central. By building the Terminal Railroad

from Argo to the Union Stock Yards, the Michigan Central obtained the desired entrance. Similarly, the Chicago, Hammond and Western desired access to the Stock Yards; this could be most conveniently effected over the rails of the Terminal Railroad. Hence the trunk line and the belt line had mutuality of interests.

It will be observed that these projects were all started about the same time; and that in three of them at least substantially the same parties appear either as directors or as incorporators.¹ It would be difficult to resist the conclusion that they were in reality separate parts of the same general scheme, a project to encircle the city with a belt line which should lie outside of the already existing Belt Railway of Chicago, and yet inside of the existing line of the Elgin, Joliet and Eastern, thus affording what might be called a "middle belt."

As noted in a previous section, the Chicago, Hammond and Western was consolidated in 1898 with the Chicago and Indiana State Line in the interest of the Union Stockyards and Transit Company. The Chicago Junction, the name of the consolidated company, operated the Chicago, Hammond and Western property up to 1907. On January 25, 1905, the Terminal Railroad changed its name to the Indiana Harbor Railroad of Illinois. This new company took over the property of the Terminal Railroad, the rights of the Michigan Central to operate over the Chicago Junction from Whiting to Franklin Park (Chicago, Hammond and Western), and appears also to have taken over the East Chicago Belt, though precisely how is not clear. Its capital stock now appears to be owned equally by the Michigan Central and the Lake Shore and Michigan Southern railroads.

On November 25, 1902, a corporation known as the Indiana Harbor Railroad of Indiana had been formed to build a railroad from Indiana Harbor due south to Sullivan, Indiana; but Danville, Illinois, subsequently became the southern terminal. The exact relation of this Indiana company to the Illinois company of the

¹Hammond and Blue Island built by G. H. Hammond Packing Company.

Chicago, Hammond and Western, incorporators: J. P. Lyman, F. S. Winston, K. H. Bell, C. W. Hotchkiss, James Miles. At least J. P. Lyman was connected with G. H. Hammond Company.

East Chicago Belt, incorporators: F. S. Winston, James F. Meagher, F. R. Babcock, Silas H. Strawn, Charles W. Hotchkiss, James Miles, Edward S. Whitney.

Terminal Railroad, directors: F. S. Winston, James F. Meagher, F. R. Babcock, Silas H. Strawn, James Miles.

same name is not clear; the records frequently confuse them. The line to Danville was opened in February, 1906. Meantime, an extension from Indiana Harbor to Dune Park had been started, to reach the sand pits in that locality. In April, 1906, a new company was organized under the name Chicago, Indiana and Southern. For many years a railroad known as the Indiana, Illinois and Iowa had existed from South Bend, Indiana, to Zearing, Illinois (the old Kankakee Belt). The Indiana, Illinois and Indiana and the Danville extension were consolidated into the Chicago, Indiana and Southern. In this consolidation the Indiana Harbor Railroad of Indiana disappeared; and the Illinois corporation of the same name acquired trackage over the Chicago, Indiana and Southern into Gibson, Indiana, and over the extension to Gary and Dune Park.

In June, 1907, the name of the East Chicago Belt was changed to the Indiana Harbor Belt Railroad. On June 29, pursuant to agreement with the Chicago Junction, the latter sold and the former acquired the old Chicago, Hammond and Western property. In October, 1907, the new corporation bought the properties owned by the Indiana Harbor Railroad of Illinois, and obtained all trackage rights possessed by the latter. By this transaction the Indiana Harbor Belt as at present constituted came into existence.

The New York Central interests remained exclusive owners of the Indiana Harbor Belt until 1911. Under an agreement dated April 13, 1911, between the Lake Shore and Michigan Southern, the Michigan Central, and the Chicago and Northwestern and the Chicago, Milwaukee and St. Paul, the two last-named roads were admitted to a partnership in the affairs of the Indiana Harbor Belt. Under the agreement the Michigan Central and the Lake Shore and Michigan Southern each agreed to sell to the western roads 40 per cent of their stock holdings, and 40 per cent of the promissory notes of the Indiana Harbor Belt which they then held.

The Baltimore and Ohio Chicago Terminal Railroad Company

The Baltimore and Ohio Chicago Terminal Railroad Company was organized January 8, 1910, in Illinois, to succeed the Chicago Terminal Transfer Railroad Company, which represented a reorganization June 4, 1897, of the Chicago and Northern Pacific Railroad and the Chicago and Calumet Terminal Railway companies. The last two companies were consolidations of other railroads.

The Chicago and Northern Pacific was primarily organized November 25, 1889, in the interest of the Northern Pacific Railroad to acquire terminal properties in Chicago. It constructed the Grand Central Station during 1889 and 1890. On March 11, 1890,

it purchased three railroads: the Chicago and Great Western, the Chicago, Harlem and Batavia, and the Bridgeport and South Chicago. The Chicago and Great Western was chartered in 1867 under the name of La Salle and Chicago Railroad, which was changed to Chicago and Great Western in 1873. No active work was done on the project until 1885, when the entire stock of the Chicago and Great Western was acquired by parties in the interest of the Wisconsin Central with the object of providing terminals for the Wisconsin Central and other carriers seeking entrance into Chicago. Up to 1887 the Chicago and Great Western had double-tracked a line of nine miles from a connection with the Chicago, Wisconsin and Minnesota Railroad (running from Schleisingsville, Wisconsin, to Chicago, now part of Soo Line) to Harrison Street and Fifth Avenue, Chicago.

The Chicago, Harlem and Batavia, organized in 1885, was opened by the Wisconsin Central in 1888, probably from West Fortieth Street to Conway Park and Cemetery, some seven miles. In 1904 its franchise expired and its tracks were removed under the judgment of the Supreme Court of Illinois.

The Bridgeport and South Chicago was incorporated in 1887 in Illinois. The proposed line was from some point on the Chicago and Great Western, in the Western Division of Chicago, thence south to the Indiana state line, with a branch from Twenty-second Street to the west line of Cook County. However, the company did not actually build any line, though it had other terminal properties.

All the properties of the Chicago and Northern Pacific were leased for 99 years to the Wisconsin Central on April 1, 1890, the same date at which the Wisconsin Central with the leasehold interests in the Chicago and Northern Pacific was leased to the Northern Pacific for 99 years. After leasing the Chicago and Northern Pacific through the Wisconsin Central, the Northern Pacific thought to place the former property in such a condition as to accommodate other tenants. The property, then extending approximately from Fifth Avenue and Harrison Street, northwest to Conway Park near the Des Plaines River, afforded access to lines approaching the city of Chicago from the west and north. To accommodate roads approaching the city from the south and east, the Chicago Central Railroad was organized in 1889, constructed and acquired, extending from a connection with the Chicago and Great Western line at Western Avenue and Fourteenth Street south along Western Avenue to Blue Island and thence slightly southeast to Harvey, Illinois. Through this branch the Baltimore and Ohio which had been using the overcrowded Illinois Central tracks was secured as a tenant. The branch also served as a suburban line. Meanwhile the Chicago and Northern Pacific acquired the Chicago and Southwestern Railroad, which probably ran from West Forty-sixth Street

at South Oak Park and was somewhat parallel with the Chicago, Harlem and Batavia.

The terminal expansion policy of the Northern Pacific included the direct purchase of the Chicago and Calumet Terminal Railway. This purchase gave the Chicago and Northern Pacific a belt line in connection with its terminal property. The Chicago and Calumet Terminal was a consolidation in September, 1887, of the following three railroads, either projected or built as reported by the Railroad Gazette:

The Calumet River Railroad was incorporated September 1, 1886, and was reported in the Railroad Gazette of September 10, 1886, to construct twenty-five miles of railroad in Lake County, Indiana. Apparently the road was intended to be part of a belt or connecting line to run south of Chicago, as indicated in the same Gazette.

The Chicago and Calumet Terminal Railroad was organized July 2, 1886, to build a railroad from a point on Lake Michigan in the village of Hyde Park, southerly and then westerly to Blue Island, and then northwesterly to a point on the north line of Cook County, and then westward [eastward?] to a point on the lake north of Chicago. Apparently the intention was to build a belt line around Chicago, some distance outside of the existing Belt Railway of Chicago.

The Hammond and Lake Michigan Railroad was incorporated February 26, 1887, in Indiana.¹ It proposed to build from the Calumet River near or at Hammond in a northeasterly direction to Lake Michigan.

In 1893 the Northern Pacific went into receivership. Its terminal relationship in Chicago by that time may be summarized as follows: it leased the Wisconsin Central, and through the latter, the Chicago and Northern Pacific. It agreed to pay the Chicago and Northern Pacific in addition to the fixed rental such sums of money as would from time to time be sufficient to pay the interest on all the outstanding bonds of the Chicago and Northern Pacific (some \$20,000,000 at 4 per cent in 1891). It owned over half of the \$30,000,000 authorized and issued stock and held \$2,500,000 bonds of the Chicago and Northern Pacific. It had bought the Chicago and Calumet Terminal in the interest of the Chicago and Northern Pacific, and owned the entire stock (\$5,000,000) and bonds (\$6,000,000) of the former company. The receivers, being legally bound by the consideration that they would not operate

¹Information obtained from the original charter of the Hammond & Lake Michigan Railroad Company.

railroad property at a loss, recommended and the court approved the abandonment of the Wisconsin Central lease in September, 1893. In the same month, they surrendered the Chicago and Northern Pacific to the Wisconsin Central. On October 10, following the default of interest on bonds, the Chicago and Northern Pacific was also placed in the hands of receivers, and on July 1, 1895, it was turned over by the Wisconsin Central to a sole receiver appointed on the application of the Farmers' Loan and Trust Company, of New York, representing the bondholders.

In the following year, a plan of reorganization was considered by the Northern Pacific and the Chicago and Northern Pacific committees. The Northern Pacific reorganization managers were to deliver to the Chicago and Northern Pacific reorganization committee the \$2,500,000 of Chicago and Northern Pacific bonds which the latter company claimed to have been improperly diverted, and also the \$6,000,000 bonds and \$5,000,000 stock of the Chicago and Calumet Terminal which the Northern Pacific had been holding. In return the Northern Pacific was to receive from the Chicago and Northern Pacific committee \$5,000,000 proprietary certificates, which were to be issued under the plan of reorganization, putting the Chicago and Northern Pacific and the Chicago and Calumet Terminal under one management. In the same year the United States Court ordered the sale of the Chicago and Northern Pacific at a minimum price of \$10,000,000, but the property was sold at auction in Chicago for only \$8,000,000, to William Allen Butler, the only bidder, on behalf of the bondholders and other interests. Meanwhile the Northern Pacific abandoned Chicago as its eastern terminus.

The Chicago and Northern Pacific reorganization plan was carried out under the name of the Chicago Terminal Transfer Railroad Company on June 4, 1897. This new corporation on June 9, 1898, purchased the Chicago and Calumet Terminal which had extended from Clarke Junction, Indiana, to McCook, Illinois, and by trackage over the Chicago, Hammond and Western, from McCook to Franklin Park, Illinois. The following will show the owned mileage of the new company as of September 9, 1898:

	1st Main	2nd Main	Sidings, Spurs and Yd. Trs.	Total
Harrison St. to Madison St. (old Chicago & Great Western).....	10.855	10.846	44.559	
Chicago & Southwestern (W. 46th St. to South Oak Park).....	5.359	1.430	1.599	

	1st Main	2nd Main	Sidings, Spurs and Yd. Trs.	Total
C.C. Div. (Western Ave. to Blue Island).....	15.194	7.610	4.340	
Harvey Line (Harvey Junc- tion to Harvey).....	3.876	....	1.827	
Clarke Junction to McCook	28.441	13.280	25.677	
East Chicago to Whiting..	3.891	....	7.702	
Chicago, Harlem & Batavia (W. 40th St. to Conway Park and Cemetery).....	6.756	4.767	1.818	
	<u>74.372</u>	<u>37.933</u>	<u>87.522</u>	199.827

Later some mileage was added or removed. An extension from Harvey to Chicago Heights was made in 1900, and brought the Chicago, Terre Haute and Southeastern into the Chicago Switching District in 1913. The Chicago, Harlem and Batavia tracks were removed in 1904 on account of the expiration of the franchise. The Chicago and Southwestern Division was occupied by the Suburban Railroad Company. In 1901 an extension was made from Franklin Park to Mayfair, with the apparent purpose of completing a lake-to-lake belt line around Chicago, but this Mayfair extension was removed later.

The Chicago Terminal Transfer not only furnished terminal facilities to trunk lines but also performed transfer services with its own motive power. Its tenants were: the Baltimore and Ohio, the Wisconsin Central, the Chicago Great Western (not Chicago and Great Western) and the Suburban Railroad Company. The Pere Marquette became a tenant in 1903. These tenants leased from the Chicago Terminal Transfer freight and passenger facilities and lands, tracks and buildings for separate and joint occupancy, or for independent improvement, if desired. The company also transferred freight cars between railroads and industries by means of its belt line and other connecting tracks.

The company failed to pay interest on its bonds, and a decree of foreclosure was entered February 20, 1907. Both the Baltimore and Ohio and the Burlington were interested in the property, but the former seems to have been the keener rival. In April, 1907, the Baltimore and Ohio secured permission from the court to redeem a certain amount of bonds for the Chicago Terminal Transfer. Thus, all further proceedings under the decree of foreclosure were delayed. On January 6, 1910, all of the property and franchise of the Chicago Terminal Transfer were bid in for

\$16,000,000 by the Baltimore and Ohio.

A new corporation was organized on January 8, 1910, under the name of the Baltimore and Ohio Chicago Terminal Railroad Company, took title to all the property of the Chicago Terminal Transfer on February 24, and began operation on April 1 in the same year. It continued to serve as a terminal and transfer line. The entire stock of the new company is owned by the Baltimore and Ohio, and a large amount of its bonds is either owned or guaranteed by the same trunk-line carrier.

The Elgin, Joliet and Eastern Railway Company

The Elgin, Joliet and Eastern Railway, generally known as the "outer belt" of the Chicago terminal, extends from Waukegan, Illinois, southwest and then south through Spaulding, Eola and Joliet, and then east through Chicago Heights to the Indiana state line at Dyer, and then northeast to Porter, Indiana. The railway, as it now stands, represents the following corporations:

- Elgin, Joliet and Eastern (Illinois)
- Elgin, Joliet and Eastern (Indiana)
- Joliet, Aurora and Northern Railway
- Gardner, Coal City and Northern Railway
- Waukegan and Southwestern Railway
- Chicago Heights and Northern Railway
- Griffith and Northern Railway
- Rockdale, Joliet and Lockport Terminal Railway
- Chicago, Lake Shore and Eastern Railway, and
- Joliet and Blue Island Railway (the last two roads being leased to the Elgin, Joliet and Eastern)

The company is owned by the United States Steel Corporation. The two leased lines, the Chicago, Lake Shore and Eastern and the Joliet and Blue Island, are owned by the Illinois Steel Company, a subsidiary of the United States Steel Corporation. The history of each of the constituent roads will be given briefly.

The Elgin, Joliet and Eastern (Illinois) was chartered March 18, 1887, to construct a railroad from a point near the southeastern corner of Cook County, on the state line, through the counties of Cook, Will, Kendall, Dupage, Kane and Cook, to a point on the northern line of Cook County, in the township of Barrington. The Elgin, Joliet and Eastern (Indiana) was chartered April 13, 1887, to build a railroad from Laporte through Porter and Lake counties to the Illinois State line in Cook County,

there to connect with another line to Elgin, Illinois.¹ The two lines of Indiana and Illinois were apparently parts of the same scheme--to form a belt line, over which freight for through points, either east or west, could be sent without passing through Chicago,² and were consolidated under their original name on December 11, 1888, with a capital stock fixed at \$4,000,000. By this time, the Elgin, Joliet and Eastern had already absorbed the Joliet, Aurora and Northern Railway, reaching from Joliet to Aurora, Illinois. Thus, the Elgin, Joliet and Eastern as consolidated had its main line running from Spaulding, Illinois, through Joliet, Illinois, to McCool, Indiana, with a branch apparently from Normantown, Illinois, to Aurora.

The Joliet, Aurora and Northern Railway was organized June 12, 1885, to propose a line from Valparaiso, Indiana, through Joliet and Aurora, to Freeport, Illinois. Apparently, only the section from Joliet to Aurora was constructed. In March, 1887, the Railroad Gazette reported the transfer of ownership of the line from Messrs. M. C. and E. E. Wood, of Chicago, and H. H. Evans and D. Robertson, of Joliet, to Drexel, Morgan and Company, of New York, at a price of \$500,000. At first, the purchasers were suspected to represent the Chicago, Milwaukee and St. Paul, which would extend the line 100 miles north of Aurora to a connection with its own system, but later the acquisition was proved to be in the interest of the Joliet Steel Company. In October, 1888, all the property of the Joliet, Aurora and Northern went into the hands of the Elgin, Joliet and Eastern.

The Gardner, Coal City and Northern Railway was chartered in 1888 to build to reach the immense coal fields in the locality of Coal City and Gardner. The road from Walker on the main line of the Elgin southward to Coster, near Gardner, Illinois, with branches (one of which probably reached Coal City), was opened for business November, 1888, and operated at cost by the Elgin, Joliet and Eastern. All the property of the road was acquired by the Elgin, Joliet and Eastern on January 9, 1891.

The Waukegan and Southwestern Railway obtained its charter in 1889, with the apparent purpose of constructing a line to link the Elgin, Joliet and Eastern at Spaulding with the lake at Waukegan. The road was completed on January 1, 1890, leased to the Elgin, Joliet and Eastern for about a year, and then on January 9, 1891, acquired by the lessee carrier.

¹The present Elgin, Joliet & Eastern does not reach Elgin with its own track, but does pass Barrington, located northeast of Elgin.

²Railroad Gazette, November 16, 1888, p. 763.

The Chicago Heights and Northern Railway was incorporated in 1897 to build a railroad from Chicago Heights to South Chicago so as to form a branch of the Elgin, Joliet and Eastern, which then entered South Chicago from Dyer, Indiana, by the tracks of the Chicago, Indianapolis and Louisville. Its proposed line was somewhat contiguous with the existing Western Indiana Railway (not Chicago and Western Indiana), which had rights and property to reach the large refineries of the Standard Oil Company at Whiting, Indiana, and other manufactories at East Chicago. On July 3, 1897, all the property and rights of the Western Indiana, including a mile and a half of single track extending easterly from Hammond, were acquired by the Chicago Heights and Northern. The branch from Chicago Heights to South Chicago was probably never built, but the Whiting extension, through the property of the old Western Indiana, was completed and opened for traffic January, 1897, from Hammond to Whiting, a distance of five and one-half miles. Apparently the Elgin, Joliet and Eastern was then unable to reach Hammond and Whiting by its own tracks, but by trackage over the Chicago, Indianapolis and Louisville, until its Griffith extension was opened in 1900.

The Griffith and Northern Railway was incorporated August 19, 1899, in Indiana, to build from Griffith, Indiana, to run north about ten miles to a connection with the Chicago, Lake Shore and Eastern, near Clarke Junction, with a branch from the main line west to a connection with the Elgin, Joliet and Eastern at Hammond (presumably this branch was the extension from Cavanaugh to Shearson or Hammond). The Griffith line was opened in February, 1900, and later acquired by the Elgin, Joliet and Eastern.

So far we have traced the extensions of the Elgin, Joliet and Eastern to the following points: Waukegan; Aurora; Coster, which is near South Wilmington, and sidings on the Gardner and Coal City branch; Hammond, Whiting, and connection with the Chicago, Lake Shore and Eastern (at Cavanaugh); and McCool. The main line extension from McCool to Porter, Indiana, was put into operation June 22, 1893.

The Rockdale, Joliet and Lockport Terminal Railway, an Illinois corporation, probably refers to the extension from Rockdale Junction to Rockdale, Illinois, 6.50 miles. Its corporate history has not been definitely determined.¹

¹Appendix 2 of Valuation Docket No. 6, 84 I.C.C. 648, mentioned the acquisition of this line by the Elgin, Joliet & Eastern. Poor's Manuals seem to have failed giving any reference to the name of this line, though it does give among the lines owned by the Elgin, Joliet & Eastern, the extension from Rockdale Junction to Rockdale, Illinois, 6.50 miles.

The Chicago, Lake Shore and Eastern Railway was a consolidation on February 17, 1897, of the Chicago, Lake Shore and Eastern, of Illinois, incorporated in 1896 to serve as an industrial railroad the various works of the Illinois Steel Company, and of the Chicago, Lake Shore and Eastern, of Indiana, incorporated in 1895 probably to serve certain steel plant interests in Indiana. By the time of consolidation, the Indiana company had extended from the Illinois-Indiana state line, near the lake, to Pine Junction, Indiana, about eight miles, though the portion from Indiana Harbor to Pine Junction, about three miles, was reported abandoned in 1908. The Illinois company had absorbed the Calumet and Blue Island Railway, incorporated September 20, 1889, as a plant railway of the Illinois Steel Company, and had probably extended the steel plant tracks at South Chicago to the state line to join the tracks of the Indiana company. At one time the Calumet and Blue Island, after lease to the Chicago, Lake Shore and Eastern, was involved in an industrial rebate case, 10 I.C.C. 394, in which the Chicago, Lake Shore and Eastern was charged to have received excessive divisions of rates as an industrial railroad. When the United States Steel Corporation began building a new plant at Gary, the Chicago, Lake Shore and Eastern was extended to link the Gary plant with the South Chicago plant. For plant purposes, the Steel Corporation desired lake frontage, occupied by the Lake Shore and Michigan Southern's four-track, stone-ballasted main line. Furthermore, the double-track, stone-ballasted main line of the Baltimore and Ohio went directly through what is now the Gary plant. The Steel Corporation influenced the two railroad companies to re-locate their lines farther away from the lake, and built for them tracks of the same type. For these changes, it spent some \$7,000,000, which was capitalized in the cost of the Chicago, Lake Shore and Eastern. The latter road soon expanded to such an extent that it seemed too big to be an industrial railroad to maintain the liberal divisions accorded by trunk-line carriers. On June 1, 1909, it was leased for 60 years to the Elgin, Joliet and Eastern, which was also owned by the Steel Corporation and which operated, as its own local stations, the numerous mills, warehouses, and other loading and unloading points on the Chicago, Lake Shore and Eastern.

The Joliet and Blue Island Railway was organized September 20, 1889, by the same incorporators who organized the Calumet and Blue Island on the same date in the same year. The railway was first leased to the Chicago, Lake Shore and Eastern, which later assigned the lease to the Elgin, Joliet and Eastern. As determined from the Interstate Commerce Commission records, 1914, it had forty-three miles of industrial and yard tracks, fifteen miles

of which were purchased from the Illinois Steel Company at Joliet, and the rest was constructed by itself and its lessees.

Summary

Before summarizing the histories of Chicago belt lines, mention should also be made of the Chicago, Milwaukee and Gary Railway and the old "Kankakee Belt." The former, an incipient belt line, is now controlled by the Chicago, Milwaukee, St. Paul and Pacific. It has reached neither Milwaukee, Wisconsin, nor Gary, Indiana, but extends only from Rockford to Delmar, both in Illinois. Even between these two points it must span gaps by trackage rights over other lines. Over 100 miles long, it serves to connect with several divisions of the Chicago, Milwaukee, St. Paul and Pacific, and other railroads. Its more detailed corporate history is presented in Appendix A.¹

The old "Kankakee Belt" formerly was part of the Chicago, Indiana and Southern, whose corporate identity has been merged into the New York Central system. It runs from South Bend, Indiana, to Zearing, Illinois, some 200 miles, and intersects many trunk lines approaching Chicago. It is used to a considerable extent to route through shipments around Chicago, and thus avoid terminal congestion. In this capacity it really serves as an "outer belt," outside even the Elgin, Joliet and Eastern. More information concerning the corporate record of the line appears under the Chicago, Indiana and Southern Railway in the last chapter.²

Now the histories of the belt and switching lines of Chicago may be summarized. They launched in construction and development after 1880, and within a period of thirty to thirty-five years had assumed their present "pattern of occupancy" in the Chicago terminal. Some of them had the purpose of accommodating trunk lines already in the terminal, while some provided facilities for various railroads seeking entrance into Chicago. Others originated for other purposes. It should be noted that the period of greatest activity in belt and switching line construction took place in the 1880's and 1890's; and more trunk lines sought entrance to Chicago in the decade 1880-1890 than in any other decade of Chicago history.

The evolution of the belt and switching lines requires an account of some forty corporations, the histories of which may be presented in a table. Then, the inter-corporate relationships

¹See pp. 247-50 of the complete dissertation.

²Chap. vii of the complete dissertation.

between the belt and switching lines and between them and the trunk lines will also be summarized.

TABLE III

SUMMARY OF CORPORATE HISTORIES OF BELT AND SWITCHING LINES

Railroad	Incorporated	Succession
I. Chicago River & Indiana..	1904	.....
II. 1. Chicago Junction.....	1898	.....
2. Chicago & Indiana State Line.....	1880	(2) and (3) consolidated to form (1) in 1898
3. Chicago, Hammond & Western.....	1896	
4. Union Stockyards & Transit Company.....	1865	Leased to (2) in 1898 and then in 1913 for perpetuity
III. 1. Chicago & Western Indiana.....	1888	.....
2. South Chicago & Western Indiana.....	1880	(2), (3), and (4) consolidated to form (1) in 1882
3. Chicago & Western Indiana.....	1879	
4. Chicago & Western Indiana Belt.....	1881	
5. Chicago Union Transfer	1888	Sold to (1) in 1912
IV. 1. Indiana Harbor Belt...	1907	.....
2. Indiana Harbor Railroad, Illinois.....	1905	Sold to (1) in 1907
3. Indiana Harbor Railroad, Indiana.....	1902	Partly became (2) but mostly became Chicago & Indiana Southern
4. Chicago, Hammond & Western.....	1896	Sold to (1) in 1907
5. Terminal Railroad.....	1896	Became (2) in 1905
6. East Chicago Belt.....	1896	Became (1) in 1907
7. Hammond & Blue Island, Illinois.....	1893	Sold to (4) in 1896
8. Hammond & Blue Island, Indiana.....	1895	Sold to (7) in 1896

TABLE III--CONTINUED

Railroad	Incor- porated	Succession
V. 1. Baltimore & Ohio Chicago Terminal.....	1910	.....
2. Chicago Terminal Transfer.....	1897	Sold to (1) in 1910
3. Chicago & Northern Pacific.....	1889	(3) and (4) consolidated to form (2) in 1897
4. Chicago & Calumet Terminal.....	1886	
5. Chicago & Great Western	1867	(5), (6) and (7) sold to (3) in 1890
6. Chicago, Harlem & Batavia.....	1885	
7. Bridgeport & South Chicago.....	1887	
8. Chicago Central Rail- road.....	1889	Acquired by (3)
9. Calumet River.....	1883	(9), (10) and (11) con- solidated to form (4) in 1887
10. Chicago & Calumet Terminal.....	1886	
11. Hammond & Lake Michigan	1887	
VI. 1. Elgin, Joliet & Eastern	1888	.....
2. Elgin, Joliet & Eastern, Illinois.....	1887	(2) and (3) consolidated to form (1) in 1888
3. Elgin, Joliet & Eastern, Indiana.....	1887	
4. Joliet, Aurora & Northern.....	1885	Sold to (2) in 1888
5. Gardner, Coal City & Northern.....	1888	Sold to (1) in 1891
6. Waukegan & Southwestern	1889	Sold to (1) in 1891
7. Chicago Heights & Northern.....	1897	Acquired by (1) in ?
8. Western Indiana.....	....	Merged in (7) in 1897
9. Griffith & Northern....	1899	Acquired by (1)
10. Rockdale, Joliet & Lockport.....	....	.....
11. Chicago, Lake Shore & Eastern.....	1897	Leased to (1) on June 1, 1909

TABLE III--CONCLUDED

Railroad	Incor- porated	Succession
VI. (Cont.)		
12. Chicago, Lake Shore & Eastern, Illinois....	1896	(12) and (13) consolidated to form (11) in 1897
13. Chicago, Lake Shore & Eastern, Indiana.....	1895	
14. Calumet & Blue Island.	1889	Sold to (12)
15. Joliet & Blue Island..	1889	First leased to (12) and then to (1)

Inter-corporate relationships.--The inter-corporate relationships regarding the belt and switching lines may be summarized as follows:

- I. Relationship between the belt and switching lines themselves:
 1. Early consolidations of various small lines, unnecessary to reiterate.
 2. Complementary relationships:
 - a. Chicago, Hammond and Western operated as an "outer belt" of Chicago Junction, 1898-1907.
 - b. Chicago and Calumet Terminal acquired in the interest of Chicago and Northern Pacific. The two formed the Chicago Terminal Transfer, later the Baltimore and Ohio Chicago Terminal.
 - c. Belt Railway of Chicago constructed in the interest of Chicago and Western Indiana, now operating latter's properties.
 - d. Chicago Junction leased to Chicago River and Indiana.
 - e. Chicago Junction and Indiana Harbor Belt complementarily operated through New York Central's control.
- II. Relationship between belt and switching lines and trunk lines:
 1. Chicago Junction controlled as Union Stockyards and Transit tracks by trunk lines from 1865 to the 1890's. Controlled by New York Central since 1922.
 2. Chicago River and Indiana controlled by New York Central since 1922.

3. Belt Railway of Chicago:

a. Controlled by five trunk lines from 1882 to 1912:

Chicago and Eastern Illinois
Wabash
Grand Trunk
Chicago, Indianapolis and Louisville
Erie

b. Owners increased from five to twelve in 1912, the additional owners being:

Santa Fe
Chicago, Rock Island and Pacific
Illinois Central
Pennsylvania
Chicago, Burlington and Quincy
Soo Line
Chesapeake and Ohio

c. In 1923, another trunk line became an owner, namely, Pere Marquette.

4. Chicago and Western Indiana controlled by the five carriers as under (3a) since 1881.

5. Indiana Harbor Belt, interested in by the New York Central before 1907, when the former bought the Chicago, Hammond and Western from the Chicago Junction through the financial assistance of Michigan Central and Lake Shore and Michigan Southern. Controlled by latter two companies up to 1911. Controlled by them and Chicago and Northwestern and Chicago, Milwaukee, St. Paul and Pacific since 1911.

New York Central acquired control of (1) Indiana Harbor Belt, then (2) Chicago, Hammond and Western from the Chicago Junction, then (3) Chicago River and Indiana, and (4) Chicago Junction through the acquisition of (3) and operation of (1).

6. Baltimore and Ohio Chicago Terminal, interested in by the Northern Pacific and the Chicago, Burlington and Quincy before being acquired solely by the Baltimore and Ohio in 1910.

The trunk lines which have no interests in the belt and switching lines are: Chicago and Alton; Chicago Great Western; Nickel Plate; and Big Four.

The Elgin, Joliet and Eastern has been owned by the United States Steel Corporation.

CHAPTER V

SERVICES OF BELT AND SWITCHING LINES

Following the last chapter on the physical properties of the belt and switching lines,¹ this chapter explains what services are produced with those properties. In other words, the present analysis is from a functional viewpoint--what is it that the belt and switching lines do? After the functional interpretation, some statistical data are presented showing the amount of service rendered by them.

Terminal operations, whether performed by trunk lines or belt and switching lines, may involve one or more of the following activities. The terminology is not very precise and is often confusing.

Joint Facility Service

Thus, several trunk lines desire entrance to a given city, but there are not enough available sites and routes for all of them. There is perhaps one good route. These lines unite and form a "terminal company." This terminal company acquires necessary land, lays tracks, builds a passenger station, perhaps a joint round house, a joint passenger coach yard, and a joint freight yard. Then, the several carriers concerned all use it, and share expenses according to the amount of use. The terminal company may have no motive power or cars whatever. It simply maintains the track and other joint facilities and prorates the expenses. It is a sort of accounting company; it pays the expenses and charges them back on the owning carriers. It is therefore called a "terminal line" as distinguished from a "switching line." It does no switching; it simply provides terminal facilities. Hence the Interstate Commerce Commission speaks of "Terminal and Switching Companies." Since there may be terminal lines that do not switch, there may also be switching lines that do not own terminal facilities. Likewise a line may be mainly a terminal line (as thus defined) and also do some switching.

The Baltimore and Ohio Chicago Terminal owns and maintains

¹ Chap. iv of the complete dissertation.

the Grand Central Station on Harrison Street for its use and the use of the Baltimore and Ohio, the Chicago Great Western, the Soo Line, and the Pere Marquette. It also maintains a coach yard at Lincoln Street, but the service is somehow limited with respect to the Soo Line. Perhaps a more typical terminal company furnishing both passenger and freight terminal facilities is the Chicago and Western Indiana. It owns and maintains the Dearborn Station for its use and the use of its proprietary lines, the Santa Fe, the Monon, the Erie, the Chicago and Eastern Indiana, the Grand Trunk, and the Wabash. It maintains a coach yard for the joint use of itself and all tenants except the Santa Fe and the Grand Trunk. All passenger and some freight engines are handled there; the service includes running repairs. The Indiana Harbor Belt, jointly with the Michigan Central and the New York Central, maintains at Gibson, Indiana, a round house for freight engines, a locomotive shop, car repair facilities and service, a storehouse and storehouse yard, a transfer station, and a classification and train yard.

A trackage service may be considered as another kind of joint facility arrangement. In the railroad form of transportation three important elements are blended, namely, the road, the vehicle, and the motive power. But one carrier may provide the road, and another the vehicle and motive power. Thus, carrier "X" may have no direct connection with carrier "Y"; but carrier "Z" may connect with both. For a consideration carrier "Z" may allow carrier "X" to run its transfer trains over the rails of "Z" to the connection with "Y." In this case "Z" simply furnishes track and the men to operate it (i.e., signal men, despatchers mainly). The other carriers furnish motive power, train crews and cars. Not only the belt and switching lines, but the trunk lines and industrial lines can all grant trackage rights to other roads and each other. The trackage rights may buy over main line and running tracks, or leads and connections to industries.

Switching Service

A switching movement consists in moving a car between points within a single station or a switching district; for instance, placing the loaded car and returning the empty car or placing the empty car and returning it when loaded. However, a switching movement may not involve loading or unloading, e.g., switching of carloads between two lines by an intermediate line. The switching movement may be on one railroad, between railroads, between a railroad and an industry, or within the plant of the industry. The different processes or types of switching operations

may now be discussed in detail.

Terminal switching.--The term terminal switching is often used to distinguish from line-haul switching. Transportation service is often defined as a line haul and a switching service preceding or following a transportation service is defined as line-haul switching. A terminal switching service, however, is performed in connection with a carload at one place to be unloaded at another place, when both places are within the switching limits of the same station or otherwise defined switching district. Thus used, it is synonymous with the term intra-terminal switching. In line-haul switching, a car may be loaded or placed for unloading at a private siding located on the road performing the line haul; or the car may be loaded or unloaded at a private siding located on some road other than the one performing the line haul.

A distinction should also be made between the two contrasting expressions intra-terminal switching and inter-terminal switching. In the last paragraph, the term intra-terminal was used in a broad sense to include the entire terminal district of a number of carriers. However, when in contrast with the term inter-terminal, it is used in a narrow sense. The difference here lies in the number of carriers involved. That is, an intra-terminal switching is a switching movement from one place to another on the same railroad, while an inter-terminal switching is a switching movement from a place on one railroad to a place on another railroad. Of course, in both cases, the movement is within the switching limits.

To avoid ambiguity of the word intra-terminal, frequently the terms local switching and interline switching are used to take the place of intra-terminal switching and inter-terminal switching, respectively.

Interchange.--An interchange service involves at least two railroads. It may be direct or indirect. It is indirect when one or more intermediate carriers are involved. Otherwise, it is direct. Thus, at an industry located on the St. Paul, a shipment may be originated for an industry located on the Chicago and Northwestern. The former carrier may deliver the shipment direct to the latter carrier at an interchange point. If, however, the car were destined to an industry located on the New York Central, the St. Paul would have to deliver the car to the New York Central via the Indiana Harbor Belt. In this case, the Indiana Harbor Belt performs an intermediate interchange service or "overhead switching." In the illustration, both the originating and receiving industries have been supposed to be within the switching limits. Of course, it is possible for the Indiana Harbor Belt to perform a similar intermediate service on a shipment originated in but

destined out of Chicago, or originated beyond but destined to Chicago. In all these cases, the Indiana Harbor Belt does not have to spot the car at some industrial siding or team track, as does the carrier who performs a terminal switching service.

Sometimes the word transfer is used to mean interchange. But a transfer service may not involve two railroads, for it may refer to movement of cars from one yard to another on the same railroad. Where two or more railroads are concerned, the transfer service, as the term implies, may mean the taking of a car or cars from one railroad to another, while the interchange service means the delivering of the cars between the railroads. Since transfer and interchange are merely two steps of the same operation in such cases, that is, delivery of cars between railroads, the term interchange may well be used to cover the whole operation, unless distinction between the two activities is necessary.

Interchange may be reciprocal. That is, the transfer crew of one road may bring cars to another road for delivery, and then bring back to their home road the cars which the other road has received for them. To reciprocate, the transfer crew of the other road may do likewise. Where conditions permit such reciprocity, economy lies in the fuller utilization of the transfer force, which otherwise may have an empty trip either way.

Clearing operations.--Perhaps this service can be better explained by an illustration. Suppose carriers "X" and "Y" are trunk lines, and carrier "Z," a belt line. Suppose that carrier "Z" connects with "X" at point 'a,' and with "Y" at point 'c.' Also suppose that "Z" has a large railroad yard at point 'b,' intermediate between 'a' and 'c.' Now if carrier "Z" should perform the full interchange service described in a preceding section, to take a car from "X" and deliver it to "Y" would involve at least the following moves by "Z":

Haul the car from 'a' to 'b.'

Classify it at 'b' and make up a transfer train to go to 'c.'

Haul the car from 'b' to 'c.'

Now suppose that by arrangement with "Z," both "X" and "Y" should haul their cars over "X" rails into 'b.' Then carrier "X" would haul the car from 'a' to 'b'; carrier "Y" would haul it from 'b' to 'c.' Carrier "Z" would simply furnish the track, and classify the cars at 'b' making them up in train order for the connecting carriers "X" and "Y." This operation may be termed a clearing service. Its analogy to bank clearings is evident. Of course, with only two connecting carriers the process would be very simple. But if there were a dozen or more, the process of classification of cars brought in would become quite complex. In clearing as

distinguished from the interchange service described previously, the switching or belt carrier simply classifies, and does not actually transfer.

In this connection, the Clearing Yards of the Belt Railway of Chicago deserve mention. The yards are located about midway between the termini of the Belt Railway, and are practically five miles long and one-half mile wide with approximately 180 miles of trackage. The Belt Railway is owned by thirteen trunk-line carriers, all of whom operate with their own crews into Clearing Yards and thus effect practically a direct interchange. The transfer crews handling trains in, also take trains out, and thus eliminate "light" runs to some extent.

There is another somewhat specialized yard which clears merchandise cars. This is the Leavitt Street Yard of the Chicago River and Indiana. To this yard trunk-line railroads bring their transfer merchandise for other railroads, and from it they haul the transfer merchandise cars that have been brought there by their connections. The belt and switching lines (except one which does not use the yard) also bring all or a portion of the cars loaded at their universal houses for rehandling at trunk-line freight houses. Then the trunk lines concerned send for these cars.

Plant switching.--This includes services on various manufacturing plants, known as intra-plant switching. All railroads perform this service. Within the switching district, there are at present more than 3,500 industries with private or individual side tracks connected with the different classes of railroads serving them. Many of them depend on the railroads for transportation within their plants, such as movement of materials and products from storage to and between processing departments, removal of waste materials, and so forth.

Less-Than-Carload (L.C.L.) Services

These will be presented under two headings, universal stations and trap cars.

Universal station service.--A belt-line freight station, to be distinguished from a trunk-line freight station, is often called a universal freight station. A trunk-line freight station receives freight only for points on the trunk line or its connecting lines. A universal freight station receives freight for all lines, because the belt carrier cannot perform the line haul on the shipment. At a universal station, freight may be received from drays or in freight cars. Some belt or switching lines operate these stations only on outbound traffic, and some on both

inbound and outbound. For such traffic they receive a division of the revenue from the trunk-line carrier. They may specialize on freight from or to industries in the Chicago district only, they may operate a transfer station to transfer freight going through the Chicago district, or they may combine both functions. Furthermore, these belt and switching lines have many small stations within the district. They may transport freight locally between some of them, or they may refuse to perform such local l.c.l. service at all. In general it may be said that the local l.c.l. service of the belt and switching lines is nearly always restricted.

Trap car service.--The tariff definition of a trap car is:

"The term 'Trap Car' is applied to a car placed at an industry and loaded with less-than-carload freight, to be forwarded to a freight station of the road on which the industry is located for handling of contents, or, at issuing or road haul carrier's option, sent to one of its freight stations or transfer points for handling of contents, or at issuing or road haul carrier's option, sent to destination; also a car containing less-than-carload freight forwarded, at issuing or road haul carrier's option, from point of origin, or contents handled at a transfer point or freight station and forwarded to an industry."¹

Thus, one of the characteristics of the trap car service, as defined, is: car loaded by an industry located on the rails of the carrier which enjoys the outbound (or inbound) long haul. In practice, however, the service is not so restricted as the definition would imply. To explain this, recourse must be had to the history and purpose of the service. Its purpose from the shipper's standpoint was to avoid drayage charges; from the carrier's standpoint, partly to avoid freight house congestion, and partly to secure a greater competitive weapon. From the social standpoint it was justified on the ground that it would lessen city congestion. Thus all railroads strive to locate freight houses as near the downtown zone as possible, because much of the l.c.l. freight originates and is destined there. A new concern seeking a location would also strive to be near the freight houses so as to diminish cartage costs. But if the carrier would offer virtually to pay the cartage charges provided a certain minimum amount of such l.c.l. freight were offered at one time, it would be for the

¹Illinois Freight Association, Tariff No. 20-S, effective August 25, 1930, p. 28.

interest of the firm to locate farther from the congested district. Thus originally the trap car service applied to an industry located on the line enjoying the road haul.

But extensions of the service took place. Carriers compete for traffic. Shippers select routes. The service was extended to an industry by a carrier whose rails did not even connect with it. The road on which the industry was located might switch the trap car to that carrier just like a regular carload, and in turn, receive some compensation for the switching service. Belt lines have made a further extension of the principle. They operate universal stations, and accord trap car service to their own industries. An industry may load into an empty car a given minimum quantity of l.c.l. freight for not merely one railroad in Chicago, but any and all railroads in Chicago. It loads the trap car to the universal station of the belt line. The latter reloads this into straight cars for the various connecting lines. The service has been in most cases confined to industries with industrial sidings, but some belt lines have gone a little farther still, according the service to industries using the team tracks as well.

Freight and Passenger Service

Certain belt and switching lines conduct a regular freight or passenger service within the Chicago Terminal District. The Elgin, Joliet and Eastern maintains a freight train schedule between Waukegan and Porter, Griffith and South Chicago, Shearson and Whiting, and South Chicago and Gary, and runs extra trains as volume of traffic demands. The Chicago and Western Indiana maintains suburban passenger service between Dearborn Station and Dolton, a distance of approximately seventeen miles, with sixteen intermediate stations.

Analysis of Traffic

Some statistical data are available to show the volume of switching service performed by the belt and switching lines. The Committee on Co-ordination of Chicago Terminals in their report of 1927 made a thorough analysis of the traffic in movement at this terminal during the week from August 26 to September 1, 1923. Though the data are not up to date, yet they yield light on the relative importance of the belt and switching lines in handling the different classes of traffic in comparison with the volume handled by the trunk and industrial lines. More recently, the General Managers' Association of the railroads of Chicago made a check on the traffic interchanged in the Chicago Terminal District

for the week from December 5 to 11, 1927. This analysis did not include any local traffic of the carriers, that is, traffic both originating and terminating on their lines. However, from the carriers themselves data have also been procured, some of which are permissible of comparison, and can be used for supplementary purposes.

Analysis will be given under the following headings:

(1) interchange traffic, including overhead cars of the belt and switching lines, cars originating on these lines but terminating on other lines, and cars terminating on these lines but originating on other lines; (2) local traffic, including cars both originating and terminating on the belt and switching lines; (3) comparison of the volume of traffic handled by the belt and switching lines with that handled by the trunk and industrial lines.

A. Interchange Traffic

(1) Overhead traffic.--Column (2) of Table XI indicates the overhead traffic of the belt and switching lines. Of the total amount of traffic interchanged in the Chicago Terminal District during a week in December, 1927, approximately 45 per cent was indirect interchange and 55 per cent was direct interchange. Of this 45 per cent indirect interchange, 43.5 per cent was handled by the belt and switching lines serving as intermediate carriers. In other words, they handled approximately 97 per cent of all the intermediate traffic in the district.

Table XII is a comparison of the overhead business among the different belt and switching lines in relation to the total intermediate traffic of the district. As shown in Table XII, the Belt Railway of Chicago and the Indiana Harbor Belt were most important in serving as intermediate carriers in this district, the former being owned by thirteen carriers and the latter by four carriers. Naturally their owners turned freight to them where possible.

The Belt Railway of Chicago renders clearing service, explained previously, for its thirteen owners. In 1929 its owner-to-owner traffic was 856,985 cars loaded and empty, about 41 per cent of its total overhead business for that year.¹

¹Belt Railway Company of Chicago, Annual Report, 1929, pp. 17-18.

TABLE XI

AVERAGE DAILY TOTAL INTERCHANGE TRAFFIC OF THE BELT AND SWITCHING LINES^a

(1) Name of Carrier	(2) Overhead Cars		(3) Cars Originated for All Other Railroads			(4) Cars Received from All Other Railroads			(5) Grand Total
	Loads and Empties		Loads	Empties	Total	Loads	Empties	Total	
Baltimore & Ohio Chicago Terminal.....	421.4 ^b		240.6	292.5	533.4	230.1	168.4	398.5	1,353.6
Belt Railway of Chicago.	3,508.1		223.1	213.4	436.5	215.1	105.6	321.0	4,265.6
Chicago & Western Indiana.....	0.3		1.4	22.3	24.0	30.3	1.1	31.4	56.0
Chicago Junction and Chicago River & Indiana.....	392.3		700.6	417.3	1,118.2	435.0	600.3	1,035.3	2,546.1
Elgin, Joliet & Eastern.	398.1		x	x	x	404.3	436.0	840.3	1,238.4
Indiana Harbor Belt.....	2,502.3		636.0	527.0	1,163.0	488.3	549.2	1,037.5	4,703.1
Total.....	7,223.1		1,802.3	1,473.1	3,275.4	1,803.4	1,861.2	3,664.6	14,163.4

^aBased on General Managers' Association of the Railroads of Chicago, Interchange Check for the Week from December 5 to 11, 1927. This report on interchange traffic was submitted to the different railroads of Chicago.

^bFractions in this table are sevenths, not tenths.

xNo report.

TABLE XII

OVERHEAD TRAFFIC OF THE BELT AND SWITCHING LINES

Name of Carrier	Percentage
Baltimore & Ohio Chicago Terminal.....	5.7
Belt Railway of Chicago.....	47.1
Chicago & Western Indiana.....	0.0
Chicago Junction, and Chicago River & Indiana.....	5.3
Elgin, Joliet & Eastern.....	5.3
Indiana Harbor Belt.....	33.6
Total.....	97.0

The foregoing overhead traffic might originate and/or terminate within or beyond the Chicago Terminal District. Serving as intermediate carriers on through traffic alone, the Indiana Harbor Belt seems more important than the Belt Railway of Chicago. The following shows the relative situation of the different belt and switching lines in handling through traffic:

TABLE XIII

AVERAGE DAILY THROUGH TRAFFIC INTERCHANGED VIA BELT
AND SWITCHING LINES*

Name of Carrier	Number of Cars	Percentage
Baltimore & Ohio Chicago Terminal...	82	2.7
Belt Railway of Chicago.....	1,114	36.7
Chicago Junction, Chicago River & Indiana, and Illinois Northern....	38	1.3
Elgin, Joliet & Eastern.....	457	15.0
Indiana Harbor Belt.....	1,344	44.3
Total.....	3,035	100.0

*Committee on Co-ordination of Chicago Terminals, The Freight Traffic of the Chicago Terminal District (Chicago, 1927), p. 113. Data in this report were for the week August 26 to September 1, 1923.

(2) Traffic originated.--Column (3) of Table XI indicates cars originating on the belt and switching lines for all other lines. These cars might be destined to points within the terminal district or beyond it. The Chicago Junction and the Chicago River and Indiana originated the largest volume of loaded traffic among all the belt and switching lines. Next in importance was the Indiana Harbor Belt. The Chicago and Western Indiana was the least important.

The average daily interchange traffic originating at points within the Chicago Switching District was 2,893.6 cars loaded and 4,737.3 cars empty or 7,631.2 cars in total.¹ Of this total, the belt and switching lines, excluding the Elgin, Joliet and Eastern, originated approximately 43 per cent.

(3) Traffic received.--Column (4) of Table XI shows cars received by the belt and switching lines from all other lines. These cars might originate from points within the terminal district or beyond it. Like originating cars, the Indiana Harbor Belt, the Chicago Junction, and the Chicago River and Indiana received a larger number of cars than the other belt and switching carriers.

The average daily interchange traffic destined to points within the Chicago Switching District was 3,761 cars loaded and 4,114 cars empty, or 7,875 cars in total.² Of this total the belt and switching lines, excluding the Elgin, Joliet and Eastern, received 36 per cent.

B. Local Traffic

Table XIV indicates the total local loaded traffic of the belt and switching lines for the year 1929.

If the figures were reduced to a daily basis, the number of local loaded cars for the different belt and switching lines would be: 136 for the Baltimore and Ohio Chicago Terminal; 25 for the Belt Railway; 118 for the Chicago Junction and the Chicago River and Indiana; and 244 for the Indiana Harbor Belt. However, for all the carriers, the local traffic is relatively small in comparison with their interchange traffic.

¹General Managers' Association, Interchange Check for the Week from December 5 to 11, 1927.

²Ibid.

TABLE XIV

TOTAL LOCAL LOADED TRAFFIC OF THE BELT AND
SWITCHING LINES, 1929*

Name of Carrier	Number of Cars
Baltimore & Ohio Chicago Terminal.....	49,804
Belt Railway of Chicago.....	9,266
Chicago & Western Indiana.....	60
Chicago Junction and Chicago River & Indiana.....	43,008 ^a
Indiana Harbor Belt.....	89,101
Total.....	191,239

*Data furnished by the carriers.

^aEstimated by the Chicago Junction and the Chicago River & Indiana by adding 10 per cent to the figures for 1930.

C. Comparison of Traffic Between Belt and
Switching Lines and Other Lines

In handling freight traffic, the movement of empty cars is incidental to the movement of loaded cars. The latter is of primary importance. Table XV summarizes the average daily loaded traffic of the Chicago Terminal District, classified according to movement as well as carriers. The purpose is to show the relative importance of the belt and switching lines in handling each class of traffic in comparison with the trunk and industrial lines.

Explanation of the terms used in the table is necessary. Inbound movement refers to traffic brought into the Chicago Terminal District from points outside for destination within; outbound movement refers to traffic originating in the district for movement to points outside; intra-district movement refers to traffic having both origin and destination within the district; through movement refers to traffic having neither origin nor destination within the district. Thus defined, the belt and switching carriers delivered to points of destination on their lines 32 per cent of the inbound traffic and originated from points on their lines 33.3 per cent of the outbound traffic. In other words,

TABLE XV

PERCENTAGE COMPARISON OF TRAFFIC BETWEEN THE BELT AND SWITCHING LINES AND THE TRUNK AND INDUSTRIAL LINES*

Class of Movement	Belt and Switching Lines	Trunk Lines	Indus- trial Lines	Total
Inbound, delivered....	32.0	64.4	3.6	100.0
Outbound, originated..	33.3	62.8	3.9	100.0
Intra-district:				
Originated.....	62.1	28.8	9.1	100.0
Delivered.....	51.0	43.0	6.0	100.0
Intermediate.....	98.5 ^a	0.3	1.2	100.0
Through.....	67.0	33.0	...	100.0

* Committee on Co-ordination, The Freight Traffic of the Chicago Terminal District, pp. 54, 55, 57, 58, 115, and 113.

^a Ninety-seven per cent, according to the more recent figures of the General Managers' Association.

they handled approximately a half of the amount handled by the trunk lines in both inbound and outbound traffic at this terminal. In intra-district traffic, they handled more than both the trunk and industrial lines combined. The portion of this intra-district traffic local to the belt and switching lines was 41.8 per cent. In traffic interchanged via intermediate lines, they handled 98.5 per cent, while the trunk lines handled less than half of one per cent. In through traffic, the belt and switching lines handled 67 per cent by serving as intermediate carriers, while the trunk lines handled 33 per cent either by hauling the freight through the terminal without interchange or serving as intermediate carriers.

The foregoing number of cars included cars spotted on private sidings and public team tracks and at freight houses. Table XVI classifies them according to the place of service and indicates that the belt and switching lines led in industrial service while the trunk lines led in freight house and team track service.

To show more details of the less-than-carload traffic,

TABLE XVI

PERCENTAGE OF LOADED CARS PLACED AND LOADED CARS PULLED*

Class of Carrier	Freight Houses and Team Tracks	Industrial Sidings
Belt and switching lines...	10.7	56.3
Trunk lines.....	88.1	36.7
Industrial lines.....	1.2	7.0
Total.....	100.0	100.0

*Committee on Co-ordination, The Freight Traffic of the Chicago Terminal District, p. 68.

the Committee on Co-ordination gave a summary of the average daily l.c.l. tonnage delivered to consignees and received from consignors in the Chicago Terminal District. The belt and switching lines maintained eleven universal stations, and handled the following amount of l.c.l. business:

TABLE XVII

AVERAGE DAILY LESS-THAN-CARLOAD TONNAGE DELIVERED TO
CONSIGNEES AND RECEIVED FROM CONSIGNORS*

Methods of Handling	Delivered to Consignees		Received from Consignors	
	Aver- age Daily Tons	Per Cent of Total Tonnage in Chicago Terminal District	Aver- age Daily Tons	Per Cent of Total Tonnage in Chicago Terminal District
Consignees' or consignors' drays In trap cars.....	76	.....	1,360	.....
	62	.....	1,559	.....
Total.....	138	2.3	2,919	24.2

*Ibid., p. 82.

Summary

Analysis of the services of the belt and switching carriers has covered only their more important activities, and is by no means exhaustive. Some of their services are rendered primarily for carriers, for instance, joint facility, trackage, interchange, and clearing services. Some services, like intra-plant switching, are rendered primarily for shippers. In line-haul switching, the belt and switching lines serve as a link between road-haul carriers and shippers. The amount of service rendered by each line varies. The statistical data have shown that the Belt Railway of Chicago is very important as an intermediate carrier. The Chicago Junction and the Chicago River and Indiana perform much industrial switching in originating and terminating traffic. The Indiana Harbor Belt, however, is important in both intermediate and industrial services. The Baltimore and Ohio Chicago Terminal renders facility service, and performs less switching than the other carriers just mentioned. The Chicago and Western Indiana is relatively insignificant in its switching operation, but furnishes much facility service. The Elgin, Joliet and Eastern is more like a road-haul carrier than a switching carrier. Comparing with the trunk-line carriers, the belt and switching carriers handle a larger volume of intra-district, intermediate, and through traffic. On the other hand, they originate and terminate much less outbound and inbound traffic than the trunk-line carriers. Less-than-carload service is to them of secondary importance.

CHAPTER VI

COMPENSATION FOR THE BELT AND SWITCHING SERVICES

To explain the sources of income of the belt and switching carriers is to explain how their services are compensated. Some services are performed by all the carriers but with variation in importance, while other services are performed by certain carriers but not by others. The schemes of compensation are generally different for different services; and sometimes compensation for the same service may be on one basis with one carrier, but on another basis with another carrier. The present chapter intends to survey briefly the more important forms of compensation with stress on the compensation for switching services. This emphasis of the switching revenue is justified at least on two grounds. First, it constitutes so important a source of revenue for all the belt and switching lines operating at Chicago that the average annual switching revenues for 1923-1929 inclusive amounted to over 70 per cent of the average total operating revenues and non-operating incomes, for the same period, of all the belt and switching companies,¹ excluding the Elgin, Joliet and Eastern which according to the Interstate Commerce Commission classification is a trunk-line carrier and derives its revenue largely from freight. Second, the switching arrangement at Chicago embodies peculiar characteristics of its own. It is a mutual scheme agreed upon by practically all the carriers of Chicago. Its economic evolution requires explanation, so does its scope of application. How it applies, or does not apply to the belt and switching lines, should also be interpreted.

The various types of compensation may be explained under the headings somewhat in accordance with the Interstate Commerce Commission classification of railroad accounts:

A. Operating revenues, i.e., revenues from transportation and from operations incident thereto.

a. Transportation.

- 1) Freight--revenue from the transportation of freight and from transit, stop and reconsignment privileges.
The only belt line of the Chicago Terminal District

¹ See Appendix D, p. 259, of the complete dissertation.

which earns freight revenue is the Elgin, Joliet and Eastern. The other belt and switching lines do not have freight revenue but switching revenue.

- 2) Passenger--revenue from the transportation of passengers and of considerable importance to the Chicago and Western Indiana.
- 3) Switching--revenue from switching service of all kinds. All the belt and switching lines, including the Elgin, Joliet and Eastern, have switching revenue. This item will be given thorough discussion.

b. Incidental operations--revenues from services rendered incidentally to transportation. Thus, the Chicago and Western Indiana receives some revenue from (1) station privileges, such as locating automatic machines at the station, advertising therein, etc., from the operation of (2) parcel room, and from (3) storage of baggage. The Indiana Harbor Belt receives some revenue from (4) stockyard facilities. Practically all the belt and switching carriers receive some revenue from (5) storage of freight and (6) demurrage for the detention of freight cars by shippers over the free time allowed for loading and unloading.

B. Non-operating income. Some of the belt and switching carriers operate properties jointly with other carriers. Some own properties, but lease them to others for operation. Some make investment in other companies. The income derived from the use of these properties by others may be listed under the heading "Non-operating income."

a. Equipment rents. Amounts received for the use of freight cars, locomotives, or work equipment leased or interchanged. One important item contributing to or deducting from equipment rents is the hire of freight cars, on the so-called per diem basis. The belt and switching lines generally own little equipment. Unlike the trunk lines, which generally freely interchange equipment with other lines and pay per diem to the road owning the equipment, the belt and switching companies generally pay per diem but seek a re-claim from the last trunk-line connection. The per diem re-claim arrangement between the carriers is somewhat analogous to the average demurrage agreement¹

¹Under an average demurrage agreement, the charge for detention of cars, on all cars subject to demurrage, held for loading or unloading, is computed on the basis of the average time of

between the carriers and shippers, with additional free time so as to cover the period actually required by the switching carrier for performing the switching service from the time the car is placed on the interchange track until it is returned. The amount of re-claim may be determined periodically by an examination of the car records of the switching carrier. Thus, it may gain or lose under the per diem re-claim agreement, depending on whether it returns the cars before or after the allowed detention period. But in either case, the balance generally does not amount to much. Obviously the purpose of the per diem re-claim is to keep the switching carrier's revenue intact. Otherwise, it must either refuse to pay per diem or pay it with an increase in switching rates.

- b. Joint facility rent income. Amounts receivable for the rent of tracks, yards, terminals, and other facilities owned or controlled by the belt or switching carriers and used jointly with other carriers. This is a very important source of income for the Baltimore and Ohio Chicago Terminal and the Chicago and Western Indiana, for both of them render terminal-facility services. The Indiana Harbor Belt also has some income of this nature. On the other hand, carriers like the Belt Railway of Chicago and the Elgin, Joliet and Eastern have net debit balances for this item.
- c. Income from lease of road. The entire amount receivable for the exclusive use of road, tracks, equipment or other railway property owned or controlled by the belt or switching companies. This item may include rents from freight cars, locomotives and work equipment as stated under (a), if the contract of lease of road so includes them. It is of extreme importance for both the Chicago Junction and the Chicago and Western Indiana, the former leasing its road to the Chicago River and Indiana and the latter leasing its belt division to the Belt Railway of Chicago.
- d. Income from funded securities, etc., of some importance to some belt and switching companies.

detention to all such cars during a given period. Credits are allowed for cars released within the first 24 hours of free time. Debits are charged for cars released after the expiration of the free time allowed. With certain restrictions, credits earned are used to offset debits incurred.

To summarize, the freight revenue of the Elgin, Joliet and Eastern may properly be excluded from the present discussion on compensation for belt and switching services. The revenues from the transportation of passengers and from incidental operations and the non-operating income such as equipment rents and interest from investment are relatively unimportant, as altogether they amount to less than 10 per cent of the total operating revenues and non-operating incomes of all the belt and switching companies excepting the Elgin, Joliet and Eastern.

The items of more significance are income from lease of road and joint facility rent income, which two sources constitute about 20 per cent of the total operating revenues and non-operating incomes of the carriers just mentioned. The income from lease of road is of consequence only to the Chicago Junction and the Chicago and Western Indiana. The basis of compensation is not identical in the two instances. The Chicago Junction leases its property to the Chicago River and Indiana for 99 years from May 19, 1922, at a rental of \$1,500,000 for the first year and \$2,000,000 each year thereafter in addition to paying all general and special taxes. In other words, the annual rental alone is approximately 33 per cent of the Chicago Junction's investment in road and equipment. The Chicago and Western Indiana leases its belt property to the Belt Railway of Chicago not at a fixed annual rental but annual interest of $4\frac{1}{2}$ per cent on the valuation placed on the belt property as existing May 11, 1911, and on the cost of acquiring the Chicago Union Transfer property; interest of 4 to 5 per cent on the Chicago and Western Indiana bonds and fifteen-year notes used for additions and betterments on the belt, and interest on equipment trust notes used for additional locomotives. Evidently the annual interest may vary as old obligations may be retired, or new ones issued. The total interest on all these items paid by the Belt Railway of Chicago to the Chicago and Western Indiana was \$1,744,018.10 for 1929.¹

The basis of compensation for the use of joint facilities may differ. One is the payment of a fixed annual rental with, in addition, the apportionment, among the users, of all the necessary expenses and taxes on some equitable basis. Thus, the Baltimore and Ohio Chicago Terminal leases its terminal facilities, freight and passenger; the tenant paying a fixed annual rental, its wheelage proportion of all expenses for the maintenance of property used jointly, its wheelage proportion of taxes on all property used jointly, and its wheelage proportion of interest on the

¹Belt Railway Company of Chicago, Annual Report, 1929, p. 12.

cost of all construction or alteration in the existing facilities necessitated by public action.¹

Switching Revenue

Switching revenue is far more important than all the other sources of revenue and income combined. As mentioned previously, it provides approximately 70 per cent of the total income. Its implications and complications will be studied in the remainder of this chapter.²

All the belt and switching carriers operating at Chicago earn switching revenue from connecting lines, which may be trunk-line, belt and switching, or industrial, and from shippers or consignees. When received from a connecting line, the revenue is technically termed an allowance or a division, and when received from a shipper or consignee, it is a charge, though the term charge is frequently used to cover all three. An allowance implies the idea of giving the carrier performing the switching service a certain sum out of the freight charges by the in- or outbound road-haul carrier, when the latter earns a minimum revenue on the carload. If it earns more than the minimum revenue, the allowance is not increased. A division implies the idea of dividing whatever charges are earned by two or more carriers participating in the haul on some agreed basis, such as percentages.

The allowances and divisions depend much upon the character of the traffic handled. If a belt or switching carrier switches a car to a team track, the service is different from that where it switches to an industrial siding. This is true because more spotting is necessary; besides, the team track is furnished by the carrier, and the industrial siding by the consignee. Also when a carrier is intermediate between two other carriers in delivering a shipment the service is different from that where it is the final carrier. When final in the delivery the line must spot the shipment; when intermediate it simply receives from one carrier and delivers to another. This operation is usually regarded as less costly, though cases to the contrary may be found. On purely local shipments and on switching services performed at an industrial plant only, the belt and switching lines must look to the industries for their income; they can secure no allowance

¹H. V. Poor, Manual of Steam Railroads, 1930 (Chicago: Poor's Publishing Co., 1930), p. 920.

²To show more details on the financial status of the belt and switching companies, Appendix D is affixed to this study. See pp. 257-65 of the complete dissertation.

from other lines. It is therefore necessary to tabulate the charges and allowances according to the service rendered. It will facilitate presentation to deal first with the carload traffic, then with the less-than-carload traffic, and then with the trap car service.

I. Carload traffic.

- A. Intra-plant switching. The belt and switching lines receive \$3.15 per car loaded or empty from industries.
- B. Local hauls between industries located on the same belt or switching line, or between industries and team tracks on the same line. With the exception of the Chicago Junction, other belt and switching lines charge $2\frac{1}{2}$ or 3 cents per 100 pounds, minimum weight 60,000 pounds, i.e., \$15 or \$18 per car. The Chicago Junction has a number of districts, and applies an intra-district rate of \$7.15 per car and an inter-district rate of $2\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, or \$15 per car.

Rates named herein include handling of empty car when in connection with loaded movement. A few commodity exceptions with lower rates obtain.

- C. Inter-line hauls, i.e., joint hauls within the Chicago Switching District, performed by two or more carriers.
 - a. Joint haul from industries to industries with individual or private side tracks:
 - 1) If the interchange is direct, the rate is $2\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, or \$15 per car. Revenue divided 50-50.
 - 2) If one intermediate carrier is involved, the rate is 3 cents per 100 pounds, minimum weight 60,000 pounds, or \$18 per car. Revenue divided $37\frac{1}{2}$ - 25 - $37\frac{1}{2}$.
 - b. Joint haul from industries to team tracks or from team tracks to industries. Generally there are no joint rates for such traffic. Combination of local rates of individual carriers applies. With a few commodity exceptions, the belt and switching lines charge 2 cents per 100 pounds, minimum weight 60,000 pounds, between industries and junctions with connecting lines, and 2 or $2\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, between junctions with connecting lines and team tracks.
- D. Line-haul switching--the belt and switching lines perform a switching service on cars inbound into the Chicago Switching District or outbound from the district. On such

traffic, with the exception of some low grade commodities, these lines receive 2 cents per 100 pounds, minimum weight 60,000 pounds, or \$12 per car, if the cars are destined to or originate from industries on these lines. If the cars are destined to or originate from team tracks on these lines, the allowance to them is 3 cents per 100 pounds subject to a minimum proportion of \$9.50 per car and to a maximum proportion of 50 per cent of through charge. The allowance on grain is lower, \$4.95 per car for all the belt and switching carriers except the Baltimore and Ohio Chicago Terminal.

- E. Intermediate hauls, i.e., the belt and switching lines serve as intermediate carriers.
 - a. Intermediate on through traffic originating outside and destined outside the Chicago Switching District.
 - 1) Perishable freight.

Indiana Harbor Belt charges \$9.50 or \$10.50 per car which includes the free return of the empty car; collects half from the delivering line and half from the receiving line.

Belt Railway of Chicago charges \$7.20 per loaded car when handled via Icing Station at Clearing; collects \$4.95 from the delivering line and \$2.25 from the receiving line. It charges \$3.15 per empty car.
 - 2) Other freight except railway equipment and explosives. All the belt and switching lines receive \$5.40 per loaded car, and \$2.70 per empty car, with the exception that the Belt Railway of Chicago receives \$3.15 per empty car from most of the line-haul carriers. All the charges are collected from the delivering carriers.
 - b. Intermediate on a line-haul switching--same allowance as under (E) with one exception. Most of the line-haul carriers allow the Belt Railway of Chicago \$6.30 per car on loaded cars originating at or destined to points in the Chicago Switching District.
 - c. Intermediate on a joint haul wholly within the Chicago Switching District. Generally the tariffs do not name any specified rate for this service, though in the tariff of the Belt Railway of Chicago is given a rate of 1 cent per 100 pounds minimum weight 60,000 pounds, including return of the empty car. Other carriers may apply different rates. Where the movement is a three-line haul between industries with individual or private

side tracks, the rate of 3 cents per 100 pounds given under (C2) applies.

II. Less-than-carload traffic (other than trap car). In general the belt and switching lines receive divisions of the through less-than-carload rates, which vary from 8 cents to $11\frac{1}{2}$ cents per 100 pounds for the different classes, subject to a maximum of 50 per cent of the through rate. In division of minimum charge on single shipments, these lines are allowed 50 per cent of the through rate, subject to a maximum of 25 cents. Some of them also apply class rates for their small local less-than-carload traffic.

III. Trap car service. Where through rates are authorized on trap cars the belt and switching lines are allowed on them the same earnings per car as on carload freight. They receive 2 cents per 100 pounds, minimum weight 60,000 pounds, on trap cars between industries and connecting lines. On through trap cars they receive \$5.40 per car. When the trap car is handled by a switching carrier, for instance, through the Gibson Transfer of the Indiana Harbor Belt, the carrier receives a division of the revenue as under II.

The line-haul switching rates, the inter-line switching rates, and to some extent the single-line switching rates, received by the belt and switching lines at the Chicago Switching District, are generally uniform, with certain exceptions. This uniformity was brought about under the Lowrey Agreement, so called because in 1911 L. A. Lowrey was the first agent of the carriers issuing a unified system of switching tariffs to apply within the Chicago Switching District. Under the Agreement, the in- and outbound carriers generally absorb the switching allowances of the belt and switching lines or other trunk lines performing the switching. The various kinds of switching rates have been increased and decreased since the time of the Lowrey Agreement. Therefore, in the remainder of this chapter will be sketched the history of the switching situation at Chicago, from the time preceding the Lowrey Agreement until the present blanket investigation of the Chicago intra-district switching rates by the Interstate Commerce Commission.

Conditions before the Lowrey Agreement

Prior to the Lowrey Agreement, "chaotic," "muddled," "uncertain," and "confusing" had characterized the switching situation at Chicago. There was great diversity in the amount and absorption of switching charges, tariff publications, and switching limits. The following are only two of the many statements depicting this switching puzzle of Chicago:

"Every road serving this territory (Chicago) had its own switching rates and regulations; some were complex and others were more complex; to the great mass of the shippers all were confusing. One road might make one charge on cars of certain capacity, might penalize other cars; make distinction as between roads, commodities, points of origin, return of cars, and a thousand and one other items that entered in the final determination of the rate."¹

"Commissioner Clarke of the Interstate Commerce Commission told our committee one day that the Commission had spent a considerable period of time trying to figure out what the switching charges of the Chicago district really were. And he said that the further they got into it the more difficult it was to comprehend the tariffs; that the tariffs were not interdependent."²

Such a state of affairs created a very strong desire for uniformity. Conditions were first brought to the attention of the Illinois Railroad and Warehouse Commission in 1906. The Commission promulgated a switching district known as the Chicago Switching District.³ In comparison with the present Chicago Switching District, the district reached as far north as Evanston but did not include any portion of the state of Indiana, over which the Illinois Commission had no jurisdiction. The southwestern, western and northwestern boundaries of both are approximately the same with slight variations.

Furthermore, the Illinois Commission defined three kinds of switching: connecting line switching, including movements from a connecting railroad to an industry; intermediate switching, including movements from one connecting railroad to another; industrial switching, including movements between industries on the same railroad.

The maximum charges for the three types of switching may be summarized:

a) Connecting line switching:

\$4 per car for distances not in excess of 5 miles

¹Traffic World, July 22, 1911, p. 166.

²Testimony of H. W. Beyers in "Brief on Behalf of Railroads Serving the Chicago Switching District," Chicago Switching Rates Case, I.C.C. Docket No. 19610 (1929), p. 33. This case is still before the Interstate Commerce Commission. Access was had to the voluminous records on the case in the office of the law firm, Burchmore, Walter and Belnap, Chicago.

³See Appendix E, p. 266, of the complete dissertation.

\$4.50 per car for distances of 5 but not exceeding 15 miles

\$5.00 per car for distances above 15 miles

Switching charges on grain, \$2.00, \$3.50 and \$4.00 for the foregoing distances, respectively

b) Intermediate switching, \$2.50 per car within the Chicago Switching District

c) Industrial switching, \$5.00, \$6.00 and \$7.00 for the respective distances as given in (a)

Grain switching charges, not to exceed 75 per cent of the switching charges for industrial switching

These charges were irrespective of weights and contents, except for grain, which enjoyed a lower rate. The charges covered the return of empty cars where necessary.

With the switching district and rates defined, the Illinois Commission declared the following rule--the then famous Rule 23:

"It is hereby declared to be the duty of all railroad companies in the Chicago switching district, on request, to provide the necessary equipment and perform the switching service herein enumerated upon being paid or tendered the charges therefor as herein fixed."¹

It should be noted that the Rule was limited to the traffic within the Chicago Switching District. It did not apply where point of origin or destination was beyond the district. It did not apply to interstate commerce, or in any case where the charge was absorbed by the railroad or railroads interested.²

Switching Rule Attacked by Railroads

A number of carriers appealed to the federal court to set aside the Illinois Commission Rule. In the Traffic World, November 7, 1908, appeared a petition in behalf of the stockholders of the Chicago and Northwestern. The arguments advanced therein may be summarized:

- a) The Rule greatly enlarged the area for switching service at charges lower than the ordinary freight charges for like distance and under like conditions, and also reduced the charges received for the switching service performed heretofore.
- b) The Rule treated public tracks of a railroad, usually a part of its station or yard, for the general reception or

¹Annual Report of the Illinois Railroad and Warehouse Commission, 1908, p. 51.

²Ibid., p. 54.

delivery of freight for the public at large in the same manner as other side tracks used for accommodating industries.

- c) The Rule required the railroad to furnish equipment for transportation of freight, in the way of a mere switching service and for a mere switching charge, from one industry to another, even though the tracks be, at one end or both, mere private tracks.
- d) The Rule required switching service without considering whether the service was incident to another transportation by the railroad itself and whether the railroad received any other revenue than the switching charge from the shipment.
- e) The Rule was arbitrary and unjust, disregarding kind, value, size, weight, or amount of shipment, or character or size of car, or length of haul, and discriminating in favor of switching service, for switching rates were unreasonably low.
- f) The Rule would cause a reduction of switching charges on interstate shipments, equal to a reduction on shipments local to state, as competition would prevent a difference of switching charges on state and interstate shipments of like articles.

For the present purpose, it does not seem necessary to go into the validity of the points set forth by the carriers. Suffice it to say that they succeeded in securing a preliminary injunction from the federal court against the Rule.

Tentative Agreement Between Railroads and Shippers

Pending decision over the Illinois Commission Rule, representatives of the carriers and shippers had numerous conferences which resulted in a tentative agreement on May 2, 1910, which consisted of two parts: the first concerning the application of Chicago rates to and from the Chicago Territory, and the second concerning industrial switching¹ within the Chicago

¹"Industrial switching" here referred to all intra-district traffic. Note difference from the definition of "industrial switching" under the Rule of the Illinois Commission, referring only to traffic local to a single railroad within the Chicago Switching District.

Switching Limits. The Chicago Territory for road-haul traffic purposes and the Chicago Switching Limits for intra-district traffic purposes were both defined. The former included practically both the present inner and outer zones of the north side roads, while the latter excluded much of the outer zone of those roads.

The conditions necessary for the application of the Chicago rates were: all carload traffic; movement into or out of the Chicago Territory; shippers or consignees provided with private sidings; absorption by road-haul carriers of switching charges for delivery or receipt of freight, except grain, coal and coke, when freight charges were \$15.00 or more per car; switching absorption reduced where freight charges were less than \$15.00 per car; maximum switching charges not to exceed 1 cent per 100 pounds, minimum weight 60,000 pounds, or \$6.00 per car. The conditions necessary for the application of the industrial switching rates were that they would apply to carload traffic except grain, coal and coke, that movement was within the Chicago Switching Limits, that industries were provided with private sidings, that switching charges were not to exceed $1\frac{1}{2}$ cents per 100 pounds for single- or two-line hauls, and $\frac{1}{2}$ cent per 100 pounds for each intermediate line where three or more roads were required.¹

It was said that the primary purpose of the agreement was the uniform application on road-haul traffic of the Chicago rates for account of all railroads to and from all industries in the Chicago Territory. In other words, points almost as far east as Gary, Indiana, as far north as Evanston, Illinois, and as far west as Proviso, Illinois, all of which were a considerable distance from Chicago proper, were, for rate-making purposes, regarded as Chicago: The rates on traffic originating and terminating within the Chicago Switching District were only secondary in importance, it being thought proper to have some understanding as to joint haul rates so that, just as on the road-haul traffic, all shippers would be on an equality.²

¹ Refer to the original agreement in Appendix F, pp. 268-73, of the complete dissertation.

²"Brief on Behalf of Board of Trade of Chicago," Chicago Switching Rates Case, I.C.C. Docket 19610 (1929), p. 38.

"Brief on Behalf of Chicago Shippers Conference Association," ibid., p. 85. Also Traffic World, November 12, 1910, p. 694.

Tentative Agreement of Carriers and Shippers Compared
with the Rule of the Illinois Commission

Comparisons may be made between (a) the tentative agreement of the carriers and shippers and (b) the Rule of the Illinois Commission.

Tentative Agreement

1. Chicago Switching District as defined included part of the state of Indiana.
2. Applying to both interstate and intra-state traffic. Movement to and from Chicago, and also within Chicago.
3. Industries provided with private sidings.
4. Intra-district rates based on number of lines hauling. Flat rate, speaking generally, for all deliveries to and from Chicago.
5. Maximum switching rates:
 - a) Intra-district two-line, $1\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, or \$9 per car.
 - b) Intermediate switching, $\frac{1}{2}$ cent per 100 pounds, minimum weight 60,000 pounds, or \$3 per car.
 - c) Local switching, $1\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, or \$9 per car. Same as two-line haul.
 - d) Grain, coal and coke excepted and given lower rates.

Illinois Commission Rule

1. Chicago Switching District as defined did not include Indiana.
2. Applying to intra-state traffic only. Movement within Chicago.
3. Industries located upon any side track.
4. Intra-district rates based on zones or a distance scale. Not concerned with rates to and from Chicago.
5. Maximum switching rates:
 - a) Intra-district connecting-line, \$4, \$4.50, and \$5 per car, depending on distances. Charges for two lines would probably be the combination of intermediate and connecting-line switching charges, or \$6.50, \$7, and \$7.50 per car, depending on distances. Load to safe capacity of car.
 - b) \$2.50 per car. Load to safe capacity of car.
 - c) Industrial or local switching, \$5, \$6, or \$7 per car, depending on distances. Load to safe capacity of car.
 - d) Grain excepted and given lower rates.

To summarize, the tentative agreement seems to have provided more uniform rates for all the railroads and shippers concerned; seems to have been more favorable to the railroads, viewed from the standpoint of switching rates; considered to a larger degree the general welfare of Chicago, disregarding individual interests of railroads and shippers.

Parties Interested in the Tentative Agreement

The opinions of the shippers, carriers, and the Illinois Commission concerning the tentative agreement may be reviewed. After signing the agreement, three shippers' organizations, the Illinois Manufacturers' Association (industrial interests), the Chicago Association of Commerce (commercial interests), and the Board of Trade of the City of Chicago (grain interests), submitted it to the Illinois Commission, requesting the latter to promulgate a rule putting the plan into effect. In the opinion of the traffic committees of the various shippers' associations, the proposed plan would contribute to the benefit of Chicago as a whole. The idea of "Chicago rates for Chicago" would greatly simplify the problem of industrial location in Chicago, as industries would pay the same Chicago rates irrespective of their location therein. Of course, no rule of general interest would satisfy every individual. The situation was well summarized by F. B. Montgomery, Chairman of the Traffic Committee of the Illinois Manufacturers' Association:

" . . . the adoption of this agreement may mark the beginning of a new era in relations between the shippers and the railroads. . . . This agreement has been reached with the sole idea of serving the general good, and in that work your committee, and the other committees, have laid aside their individual interests. . . . Should the opposition of the one or two interests that at present decline to assent to this plan prove sufficiently strong to prevent the adoption of this arrangement, it is felt that the odium of bringing two years' hard labor to naught and possibly again throwing the switching question into court and industrial conditions at mercies of the law's delays must rest upon the objectors."¹

The minority complaints came from the shippers of low grade commodities such as lumber, sand and gravel, ice, brick, coal and coke. The Lumbermen's Association of Chicago complained of the new switching charges as "exorbitant" and petitioned to

¹Traffic World, November 12, 1910, p. 694.

the Illinois Commission that the authority of regulating the switching charges should be vested in that body, so that the charges would be regulated to the best interests of all concerned. But the case was soon satisfactorily adjusted.¹ The sand and gravel interests attacked the sand and gravel rates from Tolleston, Miller, and Michigan City, Indiana, none of which were in the Chicago Switching District, to points in the district. They said:

"The present rate on sand from these points to points in Chicago is \$9 per car, 100,000 pounds capacity, for a single line haul and \$15 when the destination is on the line of a connecting carrier. The new switching tariff established a \$9 rate for single line haul and \$25 when the destination is on a connecting carrier (with the exception of a few short belt and switching lines)."²

The ice manufacturers charged that the ice rates to be put in effect were grossly excessive.³ Brick was another low grade commodity for which the inability to bear the higher all-commodity rate was claimed. Later on it was suggested by the railroads that sand, gravel, brick and ice moved at such low rates that the existing rates on those commodities should be continued, but it was understood that if the shippers wished to pay \$15 per car on such commodities and come in under the new basis, the right to do so would be theirs. The coal shippers complained about the advanced switching rates on coal coming from points on the so-called "insurgent roads"--the Chicago and Alton, the Great Western, the Chicago and Eastern Illinois, the Illinois Central, the Monon, the Santa Fe and the Wabash, and destined for points on the lines of the carriers parties to the switching agreement.

Likewise, the switching agreement was not entirely satisfactory to all the carriers, but with the exception of a few, they were all willing to give the plan a trial. Much controversy hinged on the question of absorption on grain and coal. Grain, coal and coke were excepted from the tentative agreement; but this exception was with respect to the amount of the absorption of switching charges and not to the application of the Chicago rate. At least five carriers--the Santa Fe, the Chicago and Alton, the Chicago and Eastern Illinois, the Illinois Central, and the Wabash--refused to follow the course of the other western and eastern carriers serving Chicago in applying the switching agreement to grain brought by them into the Chicago district and delivered to industries off their lines. They said that to apply the flat Chicago

¹Ibid., December 9, 1911, p. 1001.

²Ibid., July 22, 1911, p. 179.

³Ibid., p. 180.

rate to such deliveries would subject them, in the absorption of switching charges, to an unjustifiable deprivation of revenue which they could not afford to lose. The cause for their entrance into the general agreement, they said, was the threat of higher charges to be exacted of them by the large switching lines if they did not adhere to the plan. They had a disadvantageous position, because the industries on their lines in Chicago were few in number in comparison with those on other western and eastern roads having terminals in Chicago, and as a result, they had to buy far more switching service than they sold, at rates in excess of those formerly prevailing.¹ As to coal and coke, the previously mentioned insurgent roads maintained their inability to absorb on coal the switching charge of 1 cent per 100 pounds agreed to on other commodities, and therefore did not subscribe to the agreement. The coal shippers represented to the Interstate Commerce Commission that rates via those roads would thenceforth be higher than via lines parties to the agreement. Those roads were then paying the switching carriers \$4.00 per car of 60,000 pounds and under on coal and coke. Under the new agreement, a minimum of \$6.00 per car would be allowed the switching carriers on commodities other than coal and grain. Thus, the coal dealers feared that they might have to pay the difference of \$2.00 per car. The Commission arranged for a conference at Chicago in July, 1911. At the conference, the carriers which had heretofore declined to become parties to the agreement, settled their differences with the coal-delivering roads and joined in the Lowrey tariff, which, the result of the agreement of May 2, 1910, then became effective on one day's notice.²

The Illinois Commission was undecided as to the switching arrangement of the shippers and railroads. While their rule was restrained from enforcement by a federal court order, they placed the whole matter in the hands of the State's Attorney General to defend the interests of the state.³ However, they thought it advisable to give the private agreement a fair trial, and therefore permitted filing of it, subject to complaint from any shipper on specific rates. They would avoid any blanket attack on the agreement. They would not approve or disapprove the agreement, while

¹Board of Trade of the City of Chicago v. Atchison, Topeka, & Santa Fe Ry. Co., et al, 29 I.C.C. 438 (1914).

²Advances on Coal within Chicago Switching District, 27 I.C.C. 71 (1913).

³Annual Report of Illinois Railroad and Warehouse Commission, 1908, p. 10.

the litigation over the Illinois Commission rule was in process.¹

Development of the Lowrey Tariffs

The tentative agreement of May 2, 1910, was turned over to six railroad representatives as a committee to convert the understanding into tariffs, which were filed in June by L. A. Lowrey, the issuing carriers' agent, to become effective August 1, 1911. At present all the railroads, except the Elgin, Joliet and Eastern, and the two lighterage companies serving the Chicago Switching District, apply the Lowrey (now Galligan) tariffs.

Originally three Lowrey tariffs were issued, Nos. 20, 21, and 22. Number 20 applied to traffic moving between points in the Chicago Switching District and points outside the district. It provided for Chicago rates on all carload traffic to and from industries provided with private sidings and located within the Chicago Switching District. The road-haul carrier was to absorb the switching charge of not exceeding 1 cent per 100 pounds, minimum weight 60,000 pounds per car, on traffic other than grain, coal and coke, when freight charges were \$14 or more per car. There have been increases and reduction in rates since the initial publication of the Lowrey tariffs in 1911, these being

25 per cent increase under General Order No. 28 of

June 25, 1918;

40 per cent increase, August 26, 1920;

10 per cent reduction, January 1, 1922.

However, the switching rates incident to a road haul were not increased under General Order No. 28.² At present, the switching rate allowed by road haul carriers to the belt and switching line is 2 cents per 100 pounds, minimum weight 60,000 pounds. If trunk-line carriers perform the line-haul switching for the road-haul carriers, the switching allowance is 2 or $1\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds per car. The road-haul carriers absorb switching charges when their freight charges are \$19 or more per car.

Lowrey Tariff No. 21 applied to switching between industries provided with individual or private side tracks within the Chicago Switching District. It contained a uniform rate basis, which provided a rate of $1\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, for one-line and two-line hauls. Where there were more than two lines participating in the haul, each of the

¹Traffic World, July 29, 1911, p. 255.

²Ibid., November 2, 1918, p. 872.

additional carriers was not to charge a rate in excess of $\frac{1}{2}$ cent per 100 pounds. The $1\frac{1}{2}$ cent one-line haul charge was not observed by all lines; a number of exceptions were made and rates lower than $1\frac{1}{2}$ cents were applied on such commodities as refuse, cinders, slag, etc. The original tariff also provided for a uniform rate on all commodities, excluding only grain, coal and coke. The coal and coke exception, however, was removed in June and July, 1927. These intra-district rates have been adjusted as follows:

Single-line and two-line rate:

- $1\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, up to June 25, 1918, when under General Order No. 28 the rate was increased 25 per cent, becoming
- 2 cents per 100 pounds, minimum weight 60,000 pounds. Under the 40 per cent increase of August 26, 1920, the rate became
- 3 cents per 100 pounds, minimum weight 60,000 pounds. Under the 10 per cent reduction of January 1, 1922, the rate was brought down to
- $2\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds, which rate is effective now.

Three-line rate:

- 2 cents per 100 pounds, minimum weight 60,000 pounds, which rate was increased 25 per cent under General Order No. 28, becoming
- $2\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds. Under the 40 per cent increase, the rate became
- $3\frac{1}{2}$ cents which, under the 10 per cent reduction, was brought down to
- 3 cents which rate is effective now.

Switching rates which became 2 cents under the 40 per cent increase, August 26, 1920, were not decreased under the 10 per cent reduction, January 1, 1922.

Lowrey Tariff No. 22 was a directory of industries with private sidings in the Chicago Switching District. It contained information as to the location of the industries and stations at which the carriers would serve them. In 1911 there were about 2,000 such industries, as estimated; now the number has run up to about 4,000. Lowrey Tariff No. 22 is used in conjunction with tariffs Nos. 20 and 21 in determining switching charges.

Reciprocity in Chicago Switching Arrangement

The Lowrey, or Galligan at present, switching tariffs apply to both trunk-line and belt and switching carriers. One salient feature of the line-haul switching rate, i.e., on traffic

to and from Chicago, is its uniformity and absorption by the road-haul carrier. This is often spoken of by the Interstate Commerce Commission as the reciprocal switching arrangement,¹ under which the carriers switch for one another inbound and outbound carload freight at substantially uniform rates, and the rates are fixed regardless of the cost or value of the service performed on individual shipments² and absorbed by the road-haul carrier out of its freight charges.³ The theory is that the switching services performed by the various carriers will in the long run substantially offset themselves so that the actual money payment on that account from one to the other is comparatively small.⁴ The purpose is to facilitate the interchange of carload traffic.⁵ Of course, here lies a difficulty that the reciprocal condition may not exist between the carriers entering, or compelled to enter the arrangement.⁶

From the foregoing discussion, it would seem clear that the reciprocal line-haul switching arrangement at Chicago was originally an arrangement between the trunk lines themselves, not between them and the belt and switching lines or between the belt and switching lines themselves. Since the belt and switching lines do not perform road-haul service, they obviously have no

¹The Interstate Commerce Commission has used such terms as reciprocal switching (Crescent Coal & Mining Co. v. B. & O. R.R. Co. et al, 20 I.C.C. 559 [1911]), reciprocal charges (Silica Sand Producers Traffic Association of Illinois v. C. B. & Q. R.R. Co., Director General as Agent, et al, 63 I.C.C. 217 [1921]), reciprocal absorption (Detroit Switching Charges, 28 I.C.C. 494 [1913]), and reciprocal interchange (Hammarschmidt & Franzen Co. v. C. & N.W. Ry. Co. et al, 30 I.C.C. 71 [1914]), apparently in a synonymous way. But all refer to switching in connection with a road haul. No attempt at discrimination of these expressions has yet been seen anywhere. The general understanding seems that the switching arrangement is on a reciprocity basis. So the word reciprocal is used adjectively to describe the various aspects of the arrangement, including switching service (interchange), switching charges, and absorption of them.

²63 I.C.C. 217.

³20 I.C.C. 559.

⁴28 I.C.C. 494.

⁵30 I.C.C. 71.

⁶Chicago Coal Merchants Association v. Director General, as Agent, A. T. & S.F. Ry. Co. et al, 73 I.C.C. 161 (1922); People's Fuel & Supply Co. v. G. T. W. Ry. Co. et al, 30 I.C.C. 657 (1914).

line-haul switching work for other carriers to reciprocate and no switching allowance to absorb. However, they do perform line-haul switching for the road-haul carriers and earn absorbed switching allowances.

As to the intra-district switching arrangement under the Lowrey agreement, the trunk lines and belt and switching lines are generally on an equality basis. The joint through rates, generally uniform, are divided on the basis of the number of carriers participating rather than on the distance carried by each. There is no allowance or absorption. If there is any reciprocity at all, it would be in the way they make divisions. Assuming that all the joint through rates are compensatory for the entire haul, some hauls may be remunerative to all the participating carriers; some remunerative to one but not to another carrier, and so forth. If the scheme is designed on an equitable basis, in the long run the profitable and unprofitable hauls of each carrier would compensate one another. This seems a reciprocal arrangement. It is not, however, the kind of reciprocal switching arrangement generally spoken of by the Interstate Commerce Commission.

Chicago Switching District

The present Chicago Switching District approximately corresponds to the Chicago Territory defined in the tentative agreement of 1910--the present switching limits extend farther on the north. The district reaches as far north as Evanston and Des Plaines, Illinois, as far west as Mannheim, Proviso, and Willow Springs, Illinois, and as far south as Blue Island, Harvey, Illinois, Osborn and Ivanhoe, Indiana. Its southwestern and western boundary is followed closely by the Indiana Harbor Belt and the Baltimore and Ohio Chicago Terminal. It is more accurately described in Galligan Tariff No. 20.¹

The Chicago Switching District has two zones. The inner zone is the territory within the Chicago Switching District, defined as follows:

"Beginning at a point where Addison St. intersects the shore line of Lake Michigan; thence west along Addison St. to Kedzie Ave.; thence north on Kedzie Ave. to Montrose Blvd.; thence west on Montrose Blvd. to 56th Ave., including Forest Glenn, Ill.; thence south on 56th Ave. to Fullerton Ave.; thence west on Fullerton Ave. to 68th Ave.; thence south on

¹See Appendix G, p. 263 of the complete dissertation, for an accurate definition of the Chicago Switching District.

68th Ave. to North Ave.; thence east on North Ave. to 48th Ave.; thence south on 48th Ave. to 59th St.; thence east on 59th St. to the shore of Lake Michigan; thence along the shore of Lake Michigan to the point of beginning."

In short, the boundaries of the inner zone are approximately from Fifty-ninth Street on the south to Irving Park Boulevard on the north, and from Lake Michigan on the east to Forty-eighth Avenue on the west. The outer zone of the Chicago Switching District is defined as follows:

"The outer zone is the territory outside of the inner zone, and within the Chicago (switching) district."

What is the significance of the distinction between the inner and outer zones? First, the preservation of the inner zone probably has some historical background. At the time of the tentative agreement in 1910, the interchanges between carriers were largely made at points that today would be called the downtown yards within the present inner zone. With the prospect of a "Greater Chicago," extension of the switching area took place in all directions, except toward the lake. This expansion formed the outer zone. Thus the inner and outer zones, though not so named, constituted the Chicago Territory under the tentative agreement for the application of the Chicago rates. But for the application of intra-district switching rates, the switching limits included only approximately the inner zone of the north side roads and the inner and outer zones of the south side roads; and did not include the outer zone of the north side roads, which heretofore had been excluded, and had either been unprovided with joint through rates, or where it did have joint through rates, they were on a $\frac{1}{2}$ cent plus basis.

This $\frac{1}{2}$ cent plus basis requires explanation. The north side roads increased the scope of the switching territory on road-haul traffic, which became known as the outer zone. This outer zone was not included in the adjustment of the intra-district traffic on the basis of $1\frac{1}{2}$ cents per 100 pounds, minimum weight 60,000 pounds. Industries grew and spread with a tendency to locate toward the outer rim of the Chicago district, largely because of economies in land and labor supply. Some of them requested to be taken into the new switching agreement, with the understanding between them and the railroads concerned that the rates would be on the original basis of $1\frac{1}{2}$ cents plus $\frac{1}{2}$ cent per 100 pounds, minimum weight 60,000 pounds per car. This readjustment, however, did not take in all the points of the outer zone.¹

¹"Brief on Behalf of Railroads Serving the Chicago Switching District," Chicago Switching Rates Case, I.C.C. Docket No. 19610 (1929), p. 35.

Secondly, the zoning distinction in the Chicago Switching District is significant, for the trunk lines do not apply the Chicago rates on traffic to and from the inner-zone team tracks of connecting lines or absorb the switching charges of the latter on such traffic. With some exceptions, it is the policy of the trunk lines to restrict the use of their inner-zone team tracks to traffic upon which they perform the road-haul service. They admit their discrimination between deliveries on private sidings and public team tracks, but contend that if the team tracks were open to the use of foreign lines, it would disrupt the handling of business in Chicago and prove disastrous both to the railroads and to the shipping public at large.¹ However, it is the general practice for the trunk lines to apply the Chicago rates and absorb the switching charges on traffic to or from team tracks in the outer zones. As to the belt and switching lines, they generally open their team tracks to the use of all connecting lines, for they do not have to consider the performance of the road-haul service on their traffic. There are no joint rates to or from the inner-zone "closed" team tracks, the switching charges being combinations of local rates in the individual tariffs of the carriers concerned and being considerably higher than the Lowrey basis of joint-haul rates.

Exceptions to the Lowrey Tariffs

In the main the Lowrey tariffs were subscribed to by practically all the carriers serving this terminal, but with some exceptions as to certain movements and commodities. The original $1\frac{1}{2}$ cents single-line haul rate was not observed by all the carriers. The coal and coke traffic was also excepted, but was brought within the Lowrey principle in 1927. At present, grain still remains an exception to the tariff. So far as the intra-district movements are concerned, there are no joint switching rates on grain. Individual carriers publish their own grain rates, and the switching charges are determined by combining the rates of the individual roads. The grain switching rates at Chicago have always been lower than the Lowrey basis. It is said that no grain originates in Chicago and that the present switching rates are related to the entire line-haul grain rate structure and the competition with other grain markets and milling points.²

¹63 I.C.C. 217, and Switching between Connecting Lines and C. & E. I. Team Tracks at Chicago, 64 I.C.C. 500 (1921).

²"Brief and Argument on Behalf of Board of Trade of the City of Chicago," Chicago Switching Rates Case, I.C.C. Docket No. 19610 (1929), p. 96.

The general switching rates on grain at Chicago may be briefly reviewed:

- a) From a private elevator to a public elevator, where the plants are close together, the charge is \$3.15 per car, just like the intra-plant switching rate on other freight.
- b) In switching in connection with inbound movement, that is, from a connecting line to an elevator or a mill, all the belt and switching lines make the same charge of \$4.95 per car regardless of weight.
- c) In switching in connection with outbound movement, that is, from an elevator or a mill to a connecting line, the belt and switching lines make different charges, \$4.95, \$6.30, \$8.10, or more per car.
- d) In serving as intermediate carriers, they generally charge \$5.40 per car.
- e) There is greater variation in single-line switching rates ranging from \$4.95 per car to 3 cents per 100 pounds.

It should be noted that there is a difference between the switching rates on grain and on grain products. Under the Lowrey agreement switching rates on grain products such as flour are absorbed as on other general commodities.

Chicago Switching Rates under Investigation by the Interstate Commerce Commission

The order of the Interstate Commerce Commission in Docket 19610 instituting a general investigation of the switching rates in the Chicago Switching District was issued in May, 1927. As yet no decision has been made public. The situation seems to be: the railroads of Chicago are asking for increased rates based on a 60,000 pound minimum applicable within the Chicago Switching District: 3 cents ($2\frac{1}{2}$ cents now) per 100 pounds for single-line hauls; $3\frac{1}{2}$ cents ($2\frac{1}{2}$ cents now) per 100 pounds for two-line hauls; 4 cents (3 cents now) per 100 pounds for three-or-more-line hauls. The rates involved are also applicable between Chicago Heights and the Chicago Switching District and between Gary, Indiana, and the Chicago Switching District. The switching rates on road-haul traffic to and from Chicago are not involved. The carriers also proposed to place grain generally upon the Lowrey basis; this would result in an increase in the grain revenue from intra-district movements. But they generally conceded that exceptions should be made to the proposed all-commodity basis of waste materials, such as slag, cinders, quarry strippings, etc., without commercial value.

Studies of switching costs were made on a large number of

cars covering movements within the Chicago Switching District, consisting of single-line, two-line, and three-or-more-line hauls. Three classes of carriers were selected for study: trunk-line carriers, including the Chicago, Burlington and Quincy, the Chicago and Northwestern, the Chicago, Milwaukee, St. Paul and Pacific, the Chicago, Rock Island and Pacific, the Illinois Central; the Pennsylvania, and the Elgin, Joliet and Eastern (classified as a trunk line by the Interstate Commerce Commission); belt carriers, including the Baltimore and Ohio Chicago Terminal, the Belt Railway of Chicago, and the Indiana Harbor Belt; and industrial carriers, including the Chicago and Illinois Western, the Chicago Short Line, the Chicago, West Pullman and Southern, the Illinois Northern, and the Pullman.

The examiners have reported to the Interstate Commerce Commission in favor of the proposed rates for single and joint line hauls within the Chicago Switching District.

Summary

The belt and switching lines derive income from various sources. Their dominant sources, however, are from the lease of road, rent of joint facilities, and rendition of switching services, which may be identified with the carriers as follows: switching revenue, the Indiana Harbor Belt, the Belt Railway of Chicago, and the Chicago River and Indiana; income from lease of road, the Chicago Junction; income from lease of road and rent of joint facilities, the Chicago and Western Indiana; switching revenue and income from rent of joint facilities, the Baltimore and Ohio Chicago Terminal. The chief source of revenue for the Elgin, Joliet and Eastern is freight revenue, which is more than ten times as large as its switching revenue, according to the income statements of the company for the last few years.

In discussing compensation for the services of the belt and switching carriers, switching revenue is of most consequence. Before 1910 the switching situation at Chicago was described as hopelessly confusing. Desire for simplification first led to the proclamation of a switching rule by the Illinois Railroad and Warehouse Commission, only to meet the objection of a number of railroads. Then came the tentative agreement between the railroads and shippers in 1910, from which were formulated the Lowrey tariffs, which now apply to both trunk lines and belt and switching lines, though there is variation in the amount of line-haul switching charges allowed a switching carrier from a trunk-line carrier. One outstanding characteristic of the terminal switching arrangement is the reciprocal absorption of switching charges, a mutual

scheme between the trunk lines. The belt and switching lines do not share in this mutuality, because they do not have line-haul switching allowances to absorb. As to the intra-district switching situation, it is questionable as to whether it should be described as a reciprocal switching arrangement in the same sense as the term is generally used by the Interstate Commerce Commission. The Chicago switching rates have been increased and decreased, and at present, the railroads are fighting for a general increase in the intra-district switching rates. The examiners have proposed a report to the Interstate Commerce Commission, generally in favor of the railroads. But no final decision has yet been handed down by the Commission.

